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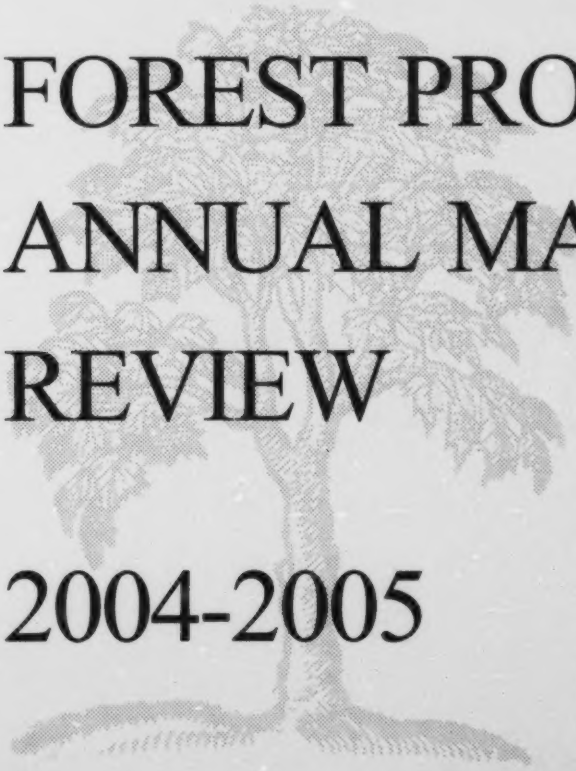

FOREST PRODUCTS ANNUAL MARKET REVIEW

2004-2005

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NOTE

The statements made in the articles are those of their authors and do not necessarily correspond to those of the secretariat or the official views of the author's home countries. Furthermore the designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The Timber Bulletin has previously consisted of six issues published in hard copy. This has now changed and only one (this Review) continues to be so published. Therefore, the issue numbering has been discontinued and only the volume numbering is used.

ABSTRACT

The UNECE/FAO *Forest Products Annual Market Review, 2004-2005* provides general and statistical information on forest products markets and related policies in the UN Economic Commission for Europe region (Europe, North America and the Commonwealth of Independent States). The *Annual Market Review* begins with an overview chapter, followed by a description of government and industry policies affecting forest products markets. After a description of the economic situation and construction-related demand in the region, five chapters based on annual country-supplied statistics, describe: wood raw materials, sawn softwood, sawn hardwood, wood-based panels, and paper and paperboard. Additional chapters discuss markets for certified forest products, value-added wood products and tropical timber. In each chapter, production, trade and consumption are analysed and relevant material on specific markets is included. Tables and graphs provided throughout the text present summary information. Supplementary statistical tables may be found on the Market Information Service website within the UNECE Timber Committee and FAO European Forestry Commission website at: http://www.unece.org/trade/timber/.

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PREFACE

Sustainable forest management depends upon sustainable forest products market development, and vice versa. Both sides of the sector, forest and market, are required to be sustainable in the short term and long term, and both sides are based on environmental, social and economic pillars. The entire sector is under scrutiny to consider all three pillars in its approach to harvesting, production and marketing. Fortunately the forest and forest industry sector is responding positively to demands for sustainable management and development. Industry and Governments are working together, along with intergovernmental and non-governmental organizations. Despite the attributes of timber, e.g. its renewability and recyclability, some negative issues face the sector worldwide, such as illegal logging. The Timber Committee and European Forestry Commission recognize the seriousness of this problem, and held a workshop in September 2004 to consider the extent and causes of the problems, and to propose remedial action.

The *Forest Products Annual Market Review, 2004-2005* is the annual flagship publication of the UNECE/FAO Integrated Programme of Work of the Timber Committee and European Forestry Commission in the field of timber and forests. The *Review* analyses forest products market developments within a context of policy development and economic conditions. The *Review* is based on the first available statistics supplied by official country statistical correspondents. It is the first comprehensive analysis available each year for the UNECE region. It is also a key background document for the annual Timber Committee Market Discussions to be held in September 2005.

In addition to the participants in these discussions, it is intended for market specialists, government policy makers and others in the sector, as well as outside. In line with UNECE and FAO priorities, the *Review* aims at providing an objective analysis of market and policy developments and providing a stimulus for meaningful policy discussion in international forums. In the current *Review* the following policy issues are specifically described:

- Forest law enforcement, governance and trade
- Initiarives to encourage the use of sustainably produced timber products
- Forest sector development policies
- Climate change policy
- Wood energy policies
- Trade policy and tariff and non-tariff barriers, including phytosanitary measures
- Emergence of China as a major player in the wood products manufacturing arena

This *Review* was possible thanks to the direct work of 40 experts and partners. In addition, 100 more contributors provided information and statistics. I take this opportunity to express my appreciation to all those who contributed, directly and indirectly, to preparing this *Forest Products Annual Market Review*, as a service to Governments and stakeholders throughout the region.

Brigita Schmögnerová
Executive Secretary
United Nations Economic Commission for Europe

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It is a pleasure for the Geneva-based Review Team to work with expert marketing specialists in the production of the *Forest Products Annual Market Review, 2004-2005*. On behalf of the UNECE Timber Committee and the FAO European Forestry Commission we would like to thank all the people who either directly or indirectly contributed to the publicaton. While we mention some people below, we simultaneously acknowledge others working with them, or companies or institutions who made their time and travel funds available. The majority of the contributions for the *Review* were donated, although a few authors' direct expenses were compensated.

In addition to those named below, numerous other experts assisted with specific sections of the *Review* and their names are included in the list of contributors. The analysis is based on statistics received from official country correspondents, who are also listed. Some data on certified forest products are from the Timber Committee and European Forestry Commission network of officially nominated country correspondents on certified forest products markets and certification of sustainable forest management. Our sincere appreciation goes to these people without whose efforts we would not have been able to produce the *Review*.

In order of chapter number, we first acknowledge the external authors, followed by all those who helped within the secretariat. Many authors collaborated with other experts, who are listed together with the contributors.

The policy chapter was written by Jim Bowyer, Professor, Department of Bio-based Products, University of Minnesota, US, and Ewald Rametsteiner, Forest-Sector Policy Expert, Institute of Forest, Environment and Natural Resources Policy, University of Natural Resources and Applied Life Sciences, Vienna, Austria. It was a pleasure to work with them to analyse the current policies affecting today's forest products markets. Both are members of the UNECE/FAO Team of Specialists on Forest Products Markets and Marketing.

Our thanks also to Dieter Hesse, Chief, Macroeconomics and Structural Studies Section, UNECE Economics Analysis Division, who wrote the economic overview section. Al Schuler, Research Economist, Northeast Forest Experiment Station, USDA Forest Service, Princeton, West Virginia and Craig Adair, Director, Market Research, APA-The Engineered Wood Association, Tacoma, Washington, wrote the construction section of that chapter. Dr. Schuler is also a member of the Team of Specialists on Forest Products Markets and Marketing. This year again they wrote the section on engineered wood products markets in the value-added wood products chapter. The first part of the value-added products chapter was written by Jukka Tissari, Head of Business Intelligence and Market Research, Savcor Indufor Oy, Helsinki, Finland. Mr. Tissari was assisted by Tapani Pahkasalo, also Consultant with Savcor Indufor, who worked as an assistant on the *Review* in 2003. We complement the analysis of primary-processed products with indications of demand from secondary-processed products through the valuable work of these authors.

Thanks once again go to Håkan Ekström, President, Wood Resources International, who analysed wood raw materials. He is Editor-in-Chief of *Wood Resource Quarterly* and the *North American Wood Fiber Review*, two publications tracking worldwide wood fibre markets, including prices. Mr. Ekström consulted with other experts and incorporated a contribution from Nikolai Burdin, Director, OAO NIPIEllesprom, Russian Federation, and former Chairman of both the UNECE Timber Committee and the FAO/UNECE Working Party on Forest Economics and Statistics. We thank all of them.

Our appreciation for the sawn softwood analysis goes also to: Dr. Burdin, who wrote the Russian analysis; Arvydas Lebedys, Forestry Officer—Statistics, FAO, who contributed information about central and eastern European markets; Antti Koskinen, Consultant, Jakko Pöyry Consulting, Finland, who wrote the western European analysis; and Russell Taylor, President, R. E. Taylor & Associates Ltd., Forest Industry Strategic Services and Managing Director and Publisher, International WOOD Markets Research Inc., who analysed the North American markets. Mr. Koskinen and Mr. Taylor are first-time authors for the *Review*, and are members of the Team of Specialists on Forest Products Markets and Marketing. We thank all of them for their insight into sawn softwood markets.

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Our gratitude goes to the four authors who again analysed the paper, paperboard and woodpulp markets: Peter J. Ince, Research Forester, USDA Forest Service, Forest Products Laboratory (and chapter coordinator); Professor Eduard L. Akim, PhD, Saint Petersburg State Technological University of Plant Polymers and the All-Russian Research Institute of Pulp and Paper Industry; Bernard Lombard, Trade and Competitiveness Director, Confederation of European Paper Industries (CEPI) with statistical assistance from Eric Kilby and Ariane Crevecoeur, CEPI; and from Tomas Parik, Managing Director, Wood and Paper A.S. Dr. Ince works in the Timber Demand and Technology Assessment Research Work Unit led by Ken Skog, Forest Products Laboratory, USDA Forest Service, whom we would also like to thank for enabling this continued cooperation. Dr. Ince, Professor Akim, and Mr. Parik are members of the Team of Specialists on Forest Products Markets and Marketing, and Professor Akim is the Deputy Leader.

We much appreciate the continued collaboration with Florian Kraxner and Dr. Rametsteiner, both from the International Institute for Applied Systems Analysis in Laxenburg, Austria, who are experts on certified forest products markets, and who analysed this sector.

The tropical timber assessment was once again performed thanks to our colleagues in ITTO: Steve Johnson, Statistician/Forest Economist, Michael Adams, Market Information Service Coordinator, Jairo Castaño, Systems Analyst, and Masaki Miyake, Statistical Assistant. Their analysis is based on their *Annual Review and Assessment of the World Timber Situation 2004* and updated with current market developments. Drs. Adams and Johnson are also members of the Team of Specialists on Forest Products Markets and Marketing.

We were fortunate to have two capable assistants during the *Review* production, Mikko Kiiskinen and Outi Marin. They are both Masters students at the University of Helsinki's Department of Forest Economics. They conducted market research and produced all of the graphics. In doing so they revised our *Graphics Production System, Review Production Manual, Review Planning System* and websites associated with the *Review*. These assistants were critical to the timely production of the publication. Their internships were facilitated by Heikki Juslin, Professor, and Tomi Rinne, Assistant, Forest Products Marketing, Department of Forest Economics, University of Helsinki.

This year's *Review* was produced with direct contributions from 40 people. Ed Pepke (UNECE/FAO Timber Branch) led the project. The individual chapters had the following lead authors: 1. Ed Pepke; 2. Jim Bowyer and Ewald Rametsteiner; 3. Dieter Hesse and Al Schuler; 4. Håkan Ekström; 5. Nikolai Burdin, Antti Koskinen, Arvydas Lebedys and Russell Taylor; 6. Michael Buckley; 7. Eva Janssens, Nikolai Burdin and Ivan Eastin; 8. Peter Ince, Eduard Akim, Bernard Lombard and Thomas Parik; 9. Florian Kraxner and Ewald Rametsteiner; 10. Jukka Tissari and Craig Adair; 11. Steve Johnson, Michael Adams, Jairo Castaño and Masaki Miyake.

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Matt Fonseca (UNECE/FAO Timber Branch) was responsible for the publication layout. Cynthia de Castro, (UNECE/FAO Timber Branch) performed all administrative duties. Sefora Kifle (UNECE/FAO Timber Branch) prepared price data and supported authors with documents and journals. T. P. Cherman, Consultant, was the principal copy editor. Christina O'Shaughnessy (Editor, Trade Development and Timber Division) and Douglas Clark (UNECE/FAO Timber Branch) assisted with copyediting and proofread the publication. Thanks to all of them.

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The national statistical correspondents listed below are the key suppliers of data for this publication. We are grateful for their essential contribution and their significant efforts in collecting and preparing the data. Complete contact information for the correspondents is provided in *Forest Products Statistics, 1999-2003*.[1]

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[1] *Forest Products Statistics* is available at www.unece.org/trade/timber/mis/fp-stats.htm

DATA SOURCES

The data on which the *Forest Products Annual Market Review* is based are collected from official national correspondents[1] through the FAO/UNECE/Eurostat/ITTO Joint Forest Sector Questionnaire, distributed in April 2005. Within the 55-country UNECE region, data for the 29 EU and EFTA countries are collected and validated by Eurostat, and for other UNECE countries by UNECE/FAO Geneva.

The statistics for this *Review* are from the TIMBER database system. As the database is continually being updated, any one publication's analysis is only a snapshot of the database at that particular time. The database and questionnaires are in a state of permanent development. Data quality differs between countries, products and years. Improvement of data quality is a continuing task of the secretariat, paying special attention to the CIS and central and eastern European countries. With our partner organizations and national correspondents, we strongly believe that the quality of the international statistical base for analysis of the forest products sector is steadily improving. Our goal is to have a single, complete, current database, validated by national correspondents, with the same figures available from FAO in Rome, Eurostat in Luxembourg, ITTO in Yokohama and UNECE/FAO in Geneva. We are convinced that the data set used in the *Review* is the best available as of July 2005. The data appearing in this publication form only a small part of the total data available. *Forest Products Statistics* will include all of the data available for the years 2000-2004. The TIMBER database is available on the website of the joint Timber Committee and European Forestry Commission at www.unece.org/trade/timber/mis.htm.

The secretariat is grateful that correspondents provided actual statistics for 2004 and, in the absence of formal statistics, their best estimates. Therefore, all statistics for 2004 are provisional and subject to confirmation next year. The responsibility for national data lies with the national correspondents. The official data supplied by the correspondents account for the great majority of records. In some cases, where no data were supplied, or when data were confidential, the secretariat has estimated figures to keep region and product aggregations comparable and to maintain comparability over time. Estimations are flagged within this publication, but only for products at the lowest level of aggregation.

In addition to the official statistics received by questionnaire, trade association and government statistics are used to complete the analysis for 2004 and early 2005. Supplementary information came from experts, including national statistical correspondents, trade journals and internet sites. Most of these sources are cited where they occur in the text, at the end of the chapters, on the list of contributors and in the annex reference list.

EXPLANATORY NOTES

"Apparent consumption" is calculated by adding a country's production to imports and subtracting exports. Apparent consumption volumes are not adjusted for levels of stocks.

"Net trade" is the balance of exports and imports and is positive for net exports, i.e. when exports exceed imports, and is negative for net imports, i.e. when imports exceed exports. Trade data for the 25 European Union countries include intra-EU trade, which is often estimated by the countries. Export data usually include re-exports. Subregional trade aggregates in tables include trade occurring between countries of the subregion.

For a breakdown of the regions, please see the map in the annex. References to EU refer to the 25 countries in the EU in 2004.

The term "softwood" is used synonymously with "coniferous". "Hardwood" is used synonymously with "non-coniferous" or "broadleaved". More definitions appear in the electronic annex.

All references to "ton" or "tons" in this text represent the metric unit of 1,000 kilograms (kg).

The term "oven-dry" in this text is used in relation to the weight of a product in a completely dry state, e.g. an oven-dry metric ton of wood fibre means 1,000 kg of wood fibre containing no moisture at all.

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[1] Correspondents are listed with their complete contact details in "Forest Products Statistics, 2000-2004".

SYMBOLS AND ABBREVIATIONS USED

(Infrequently-used abbreviations spelled out in the text may not be listed again here.)

...	not available
$	United States dollar unless otherwise specified
ATFS	American Tree Farm System
BJC	builders' joinery and carpentry
CEECs	Central and eastern European countries
CIS	Commonwealth of Independent States
CO_2	carbon dioxide
CoC	Chain-of-custody
CSA	Canadian Standards Association
DIY	do it yourself
ECB	European Central Bank
EFSOS	European Forest Sector Outlook Study
EFTA	European Free Trade Association
EQ	equivalent of wood in the rough
ETS	Emissions Trading System
EWPs	engineered wood products
FDI	foreign direct investment
FOB	free on board
FSC	Forest Stewardship Council
GDP	gross domestic product
GHG	greenhouse gas
IMF	International Monetary Fund
IPPC	Integrated Pollution Prevention and Control
ISPM	International Standard for Phytosanitary Measures
ITTO	International Tropical timber Organization
LVL	laminated veneer lumber
m.t.	metric ton
m^2	square metre
m^3	cubic metre
MDF	medium density fibreboard
NAFTA	North American Free Trade Agreement
NGO	non governmental organization
NTMs	non-tariff measures
OSB	oriented strand board
PEFC	Programme for the Endorsement of Forest Certification Schemes
PoC	Province of China
SAR	Hong Kong Special Administrative Region of China
SFI	Sustainable Forestry Initiative
SFM	sustainable forest management
tCO_2e	(metric) tons of carbon dioxide equivalent
VAWPs	value-added wood products

Chapter 1

UNECE region forest products markets respond positively to globalization: Overview of forest products markets and policies, 2004-2005

Highlights

- Strong economic conditions, combined with effective industry and government promotion policies, drove forest products markets to record levels in 2004 for the UNECE region as a whole.
- China's imports of unprocessed and semi-processed wood from the region, and its exports of value-added production back to the region, have mixed effects, depending on how successfully companies have adapted to globalization.
- Illegal logging is less than 1% of legal fellings for most countries in the region; however it is greater for a few countries, with substantial environmental, social and economic costs to governments, and with negative ramifications throughout the sector.
- North America became a net importer of sawn softwood in 2004 and its sawnwood imports exceeded European imports for the first time, as consumption expanded, driven by over 2 million housing starts.
- The important forest sector policy issues of 2004 in Russia included the Kyoto Protocol ratification, debates about private ownership of forests, use of satellites for preventing illegal logging and legal disputes over ownership and management of some wood and paper companies.
- Secondary processed wood product exports by tropical countries exceeded the value of primary wood product trade in 2004 for the first time, reflecting successful policies to promote value-added production.
- In both North America and Europe, trade associations have joined forces to promote value-added processing, and to promote the forest and forest industries sector in general.
- Concerns that wood products are legally and sustainably produced, drove governments, industry and retailers to implement purchasing policies requiring certified forest products, thereby influencing all market sectors.
- With over 240 million hectares of certified forestland, an increase of one third in the last year, the supply of certified forest products is increasing in all market sectors, from roundwood to value-added wood products.
- Sawn hardwood consumption is falling within the region, largely due to downsizing of the US furniture industry in response to imports from Asia; however, hardwood exports to Asia increased.

1.1 Forest products market and policy developments, 2004-2005

This chapter provides an overview of forest products market and policy developments in the UNECE region[1] (Commonwealth of Independent States (CIS), Europe and North America, the three subregions in this analysis) and its trading partners. The chapter first presents the findings of this year's analysis, and then summarizes the key developments for each market segment. Further details on all developments may be found in the following ten chapters of the *Forest Products Annual Market Review, 2004-2005 (Review)* and in its electronic annexes of statistical tables.

1.1.1 *Region-wide developments*

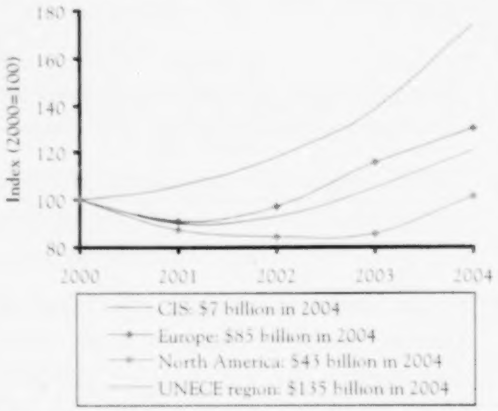
Markets at record levels

In 2004, strong economic conditions, combined with effective industry and government promotion policies, drove forest products markets to record levels for the UNECE region as a whole. Despite continued economic weakness in some western European countries, Europe's forest products markets were generally strong, with greater advances from the non-EU-25 countries, albeit often on smaller volumes. There was continued weakness in CIS countries' apparent consumption, although exports greatly exceeded pre-1991 transition levels for primary products, advancing more rapidly than other subregions (graph 1.1.1). For the entire region, exports posted the third year of growth (graph 1.1.2). With diminishing United States exports, the rise in North America's exports in 2004 only recovered to 2000 levels. In 2004, Europe's growing primary wood products exports were twice the value of North American exports.

Overall in the UNECE region, consumption of forest products reached record levels in 2004, advancing by a healthy 3.9% over 2003. Sawnwood consumption recovered from a dip in 2003 and rose by 4.3% (table 1.1.1). Consumption of panels rose even more, by 6.2%, to achieve a new high for the third consecutive year. Paper and paperboard consumption also overcame the drop in 2003, which was the third annual fall, and recovered to a new high of 199 million m.t., a rise of 3.0%. Strongest percentage gains in consumption of all primary forest products over the period from 2000 to 2004 were by the CIS, albeit on lower volumes. Despite some of the world's strongest gains in GDP in 2004, the consumption of forest products was flat. Apparently export prices, and their inherent revenues are more profitable than domestic markets; hence production increases are aimed at foreign markets. North America overcame the slump in consumption in 2003 to match the percentage increase in Europe.

GRAPH 1.1.1

Exports of primary forest products in the UNECE region, 2000-2004

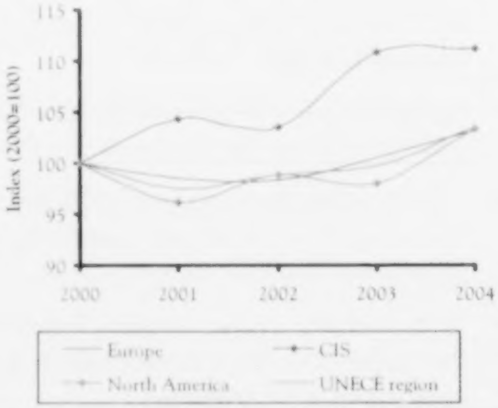


Note: Primary processed wood products include sawnwood, panels, paper and paperboard, woodpulp and roundwood.

Source: UNECE/FAO TIMBER database, 2005.

GRAPH 1.1.2

Apparent consumption of forest products in the UNECE region, 2000-2004



Note: Forest products include sawnwood, panels, paper and paperboard.

Source: UNECE/FAO TIMBER database, 2005.

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[1] Countries in the UNECE region are listed in the annex of this publication. With the expansion of the European Union from 15 to 25 countries in 2004, and the expectation of further expansion in the next years, the *Review* no longer divides the European analysis into EU/EFTA and "Other Europe", and instead maintains a focus on central and eastern European developments within the Europe subregion analysis. The developments in the EU-25 are systematically noted.

TABLE 1.1.1

Apparent consumption of sawnwood[1], wood-based panels [2] and paper and paperboard in UNECE region, 2000-2004

	Thousand	*2000*	*2001*	*2002*	*2003*	*2004*	*Change 2003 to 2004*	
							Volume	*%*
Europe								
Sawnwood	m^3	111 378	107 200	107 746	110 746	114 859	4 113	3.7
Panels	m^3	55 552	54 525	54 426	56 694	59 879	3 186	5.6
Paper and paperboard	m.t.	89 328	89 345	88 884	90 023	91 002	979	1.1
Total	m^3 EQ^3	569 911	561 641	560 792	573 082	588 078	14 996	2.6
of which: EU25								
Sawnwood	m^3	98 084	94 806	93 844	96 525	99 301	2 776	2.9
Panels	m^3	50 023	49 621	48 831	50 128	52 223	2 095	4.2
Paper and paperboard	m.t.	82 552	82 788	81 772	82 852	83 784	932	1.1
Total	m^3 EQ^3	516 822	511 733	505 487	515 514	526 465	10 951	2.1
CIS								
Sawnwood	m^3	16 213	15 364	13 226	12 386	11 543	-842	-6.8
Panels	m^3	5 133	5 998	6 702	8 219	8 265	46	0.6
Paper and paperboard	m.t.	4 508	5 144	5 698	6 434	6 855	421	6.5
Total	m^3 EQ^3	49 435	51 617	51 201	54 777	54 932	155	0.3
North America								
Sawnwood	m^3	136 083	135 484	144 148	140 129	148 214	8 084	5.8
Panels	m^3	61 947	56 893	60 106	62 192	66 823	4 631	7.4
Paper and paperboard	m.t.	102 510	97 542	97 401	96 726	101 057	4 331	4.5
Total	m^3 EQ^3	664 358	638 470	656 995	651 616	686 641	35 025	5.4
UNECE region								
Sawnwood	m^3	263 674	258 048	265 120	263 261	274 616	11 354	4.3
Panels	m^3	122 632	117 416	121 234	127 105	134 968	7 863	6.2
Paper and paperboard	m.t.	196 346	192 031	191 982	193 183	198 914	5 731	3.0
Total	m^3 EQ^3	1 283 704	1 251 729	1 268 988	1 279 475	1 329 651	50 176	3.9

Notes: 1 Excluding sleepers, 2 Excluding veneer sheets, 3 Equivalent of wood in the rough. 1 m^3 of sawnwood and wood-based panels = 1.6 m^3, 1 m.t. paper = 3.39 m^3

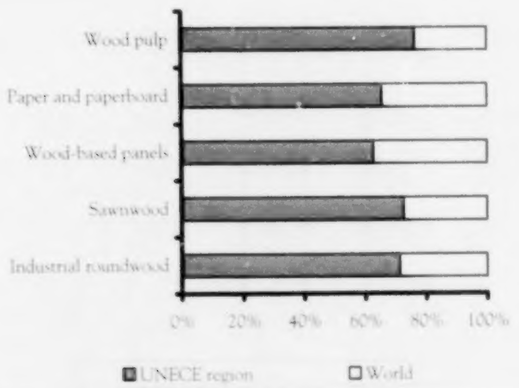
Source: UNECE/FAO TIMBER database, 2005.

UNECE region in the global context

To give proper perspective to production and trade in the UNECE region and the world, in 2004 the region produced 82% of the world's industrial roundwood, 73% of its sawnwood, 63% of its panels, 66% of its paper and paperboard, 77% of its wood pulp and 67% of its recovered paper (graph 1.1.3).

GRAPH 1.1.3

UNECE region's share of world production of primary forest products, 2004

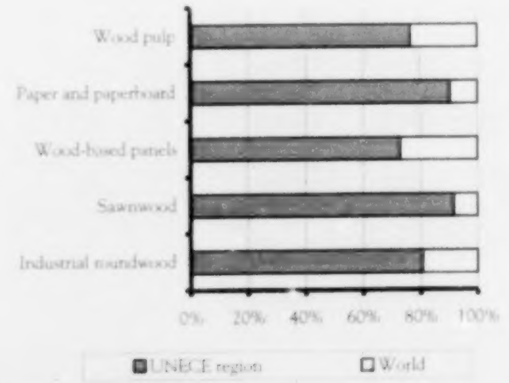


Notes: UNECE region in 2004, world in 2003 (most current statistics).

Sources: UNECE/FAO TIMBER database, FAO statistics, 2005.

GRAPH 1.1.4

UNECE region's share of world primary forest products exports, 2004



Notes: UNECE region in 2004, world in 2003 (most current statistics).

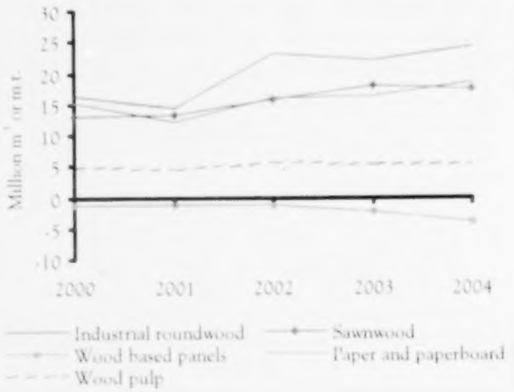
Sources: UNECE/FAO TIMBER database, FAO statistics, 2005.

For primary products, the UNECE region represents 75% to over 90% of the world's exports (graph 1.1.4). The majority of trade is within the region.

The region's trade balance has been positive (i.e. net exports) for all products, with the exception of wood-based panels, due to continued exports from the region, often to Asia (graph 1.1.5). However, there were downturns in 2004 for sawnwood and panels, mainly due to US imports from South America, Oceania and Asia.

GRAPH 1.1.5

UNECE region's trade balance of primary forest products, 2000-2004



Note: Paper, paperboard and woodpulp in m.t.; others in m^3.

Source: UNECE/FAO TIMBER database, 2005.

Market drivers in 2004 and 2005

In 2005 the strength of the US housing market continued, with prospects of another nearly 2 million housing starts, as in 2004, of which 95% are wood-based construction. This was truly the motor for the UNECE region's forest products markets. The US boosted imports from its major trading partner, Canada, as well as European, Asian and southern hemisphere countries, driving the North American subregion into a net trade deficit for sawnwood for the first time, and deepening the deficit for some other primary products.

Outside the region, China's trade of wood products made headlines. China now dominates the tropical timber trade and has moved increasingly to production of primary and secondary processed products based on imported logs. Similarly, China imports temperate timber in the form of sawlogs and veneer logs, mainly from Russia and other CIS countries, but from North

American and European countries as well, and from outside the region, e.g. New Zealand.

Although China's domestic consumption of wood and paper products is growing, its exports of value-added wood products have caused a structural change elsewhere, notably in the US marketplace. Chinese production is based in part on imported US hardwoods, but also on panel products produced domestically from a variety of imported industrial roundwood. China's exports of furniture to the US, both inexpensive and of increasingly higher quality, were a major reason for closing 50 more US furniture plants and displacing 14,500 workers in 2004. For some companies, the closure of a plant did not mean cessation of business, but rather meant that they outsourced production to China or to another low-cost producer such as Viet Nam, and maintained their strength in furniture marketing in the channels they had developed over time. The surge in Chinese furniture imports led the US Government to enact anti-dumping duties in 2004.

A recovery in Japan's economy has meant housing starts of over 1 million, of which half are wood-based construction. European sawnwood producers increased sales to Japan in 2004. Japan's greatest increase in imports of logs and sawnwood in 2004 came from Russia. Japan also increased roundwood and sawnwood imports to a lesser degree from many sources outside the UNECE region, as well as other wood products.

Currency fluctuations affected wood markets in 2004. The sharp depreciation in value of the dollar versus the euro meant that companies in Europe faced reduced revenues in markets traded in dollars, e.g. paper and pulp. However, the strong euro did not prevent a record flow of sawnwood from Europe to the US, where heightened demand and high prices overcame the currency fluctuation effects.

Forest growth exceeds harvests

The sustainability of wood supplies in the UNECE region was confirmed by two UNECE/FAO studies in 2004 and 2005. The *European Forest Sector Outlook Study*[4] (EFSOS) confirmed the long-term trend that removals of roundwood in Europe and the CIS are well below increment and forecast the same through 2020. This is confirmed in the ongoing UNECE/FAO Forest Resources Assessment.[5] In fact, growth exceeds harvest by such a large margin that unless timber removals are increased, the region's forests may suffer negative consequences of reduced vigour and greater susceptibility to insects, disease, storm and fire damage.

EFSOS points out the need for governments and industry to work together to promote the demand for forest products in order to boost forest value. Increasingly, in both developed and developing countries, high labour costs constrain forest operations and reduce the economic viability of the sector. Substitution by non-wood products remains a threat in construction and value-added products such as furniture.

Kyoto Protocol raises visibility of the forest sector

The Kyoto Protocol came into effect after it was ratified by Russia in 2005, spurring actions at several levels of government to target CO_2, methane and other greenhouse gases in emissions reduction programmes and strategies. Many countries in the UNECE region have ratified the treaty, including the EU countries, however, the US Government remains steadfast in its opposition to the protocol. As a result of the protocol, carbon trading and creation of forest-based carbon registries are developing quickly within the EU. Trading of emission allowances or credits involving the forest sector has started.

The Kyoto Protocol will raise the visibility of the forest sector with increased financing of carbon projects and trading in carbon emission rights. Its significance will vary considerably between countries, depending on the amount of land available for afforestation, including bioenergy production. Given that traditional forestry and related policies have thus far been on the fringes of this new development, agricultural and energy policies could dominate forest policy.

Soaring oil prices boost wood energy

Energy prices soared in 2004, and in mid-2005 oil prices were at record highs of over $60 per barrel. It has meant decreased revenues for manufacturers, for whom production and transport costs have skyrocketed.

At the same time, this is a favourable development for the promotion of renewable energy sources, including wood-based fuels in the UNECE region. As a result of the EU renewable energy policy, which aims at 12% renewable sources by 2010, biomass energy initiatives are underway within many EU countries. In recent years the trade of energy chips and pellets has developed in Europe and North America, and pellets are being exported from Russia. While forest-based industries have long been producers of energy from residues for their processing needs of heat and steam, some also cogenerate electricity and sell the extra energy produced.

Bioenergy is one means of contributing to mitigation of climate change since the combustion of sustainably produced biomass is carbon neutral, and because expansion of carbon-sequestering forest reserves can be counted against carbon reduction targets under certain circumstances.

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[4] www.unece.org/trade/timber/docs/sp/sp-20.pdf

[5] www.unece.org/trade/timber/WorkArea2.html

The potential contribution of biomass to energy production is considerable while remaining well within sustainable harvest limits. A part of the woody biomass would come from non-commercial forest thinnings conducted for the purpose of reducing wildfire danger, for example in accordance with the US Healthy Forests Restoration Act. The existence of wood fuel markets is expected to significantly offset the costs of silvicultural treatment.

Because of reduced availability and high demand, petroleum costs will continue to rise. A study by the US Department of Energy envisaged that 10% of industrial chemicals and materials would come from renewable resources by 2020. At approximately $400 billion per year in products, it is the equivalent of twice current forest products values. More than a quarter of this product volume is expected to come from wood.

Globalization: threat or opportunity?

To some, globalization is a threat, while to others it is an opportunity. Liberalization of trade has been coming for decades and major forest products companies, for example the international pulp and paper companies, have reacted by establishing new plants where fibre, often from plantations, and lower-priced labour and processing costs, are available. This sometimes precludes the western subregions of the UNECE region, and refers primarily to the southern hemisphere.

Promote the sound use of wood and paper products

The solution to weak markets and threatened economic viability seems obvious: promote the sound use of wood and paper products and their inherent benefits, i.e. they are renewable and recyclable, and thereby raise demand. In many instances, life cycle analyses confirm the smaller environmental impact of wood products over their lifetime, compared with their competitors: concrete, steel and plastic. Important steps have been taken to promote the forest sector and the wood and paper industry through concerted efforts by local, national and regional government bodies together with industry associations.

Faced with increasing competition from producers and exporters outside the UNECE region, governments and forest products industry associations have devised policies to compete in a world with liberalized trade of goods. The joint 2004 Timber Committee and FAO European Forestry Commission Market Discussions examined globalization and its effects on the region's forest sector. In its annual statement, the Committee said, "If they are to survive, companies have to maintain and improve their competitiveness, making radical strategic changes as necessary, and taking full account of trends in global markets."[10]

Efforts are underway in the UNECE region to promote wood use through code harmonization, encouragement of public investment in wood products technology development, and highlighting the sustainable development credentials of wood products. Continued progress necessitates greater funding for research into wood utilization and competitiveness in the EU and in North America. In both Europe and North America a number of environmentally friendly building initiatives are in place.

Effective promotion is costly, and requires collaboration between trade associations and governments. Multinational campaigns, using clear messages for targeted groups and supported by a wide range of stakeholders, are the most successful in raising wood consciousness in the region.

Innovation is key

The forest products industry in the UNECE region is dependent on a favourable business climate established by governments and trade associations. Especially in North America and the EU, countries face high costs for labour, energy and environmental protection. Prices for processed wood and paper products generally rose in 2004, but for some commodities, did not keep up with rising production costs. The industry constantly looks for means to improve efficiency, stretching labour as far as possible through mechanization. Nevertheless, cost cutting and technological improvements are reaching their limits, inciting companies to focus on marketing gains.

Competing in commodity markets is difficult and a number of cases where higher-cost countries can no longer compete with lower-cost producers, both from within and outside the region, are cited in the *Review*. Conversely, other cases are noted where commodity producers have diversified into value-added processing, for example, in the Baltic countries.

Successful marketing means industries develop new markets for wood and paper products. "New" can mean in new countries, or "new" can mean in new products. Engineered wood products (EWP) are a good example of innovative ways to use wood more effectively. While in some cases EWPs will displace traditional sawnwood applications, in the long run they will grow the market share for wood products, as evidenced by substitution for steel in building construction by glulam beams. Research and development of EWPs continues, strongly supported by trade associations and directly by government research funds for some projects.

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[10] "Forest products markets soar higher in the UNECE region in 2004 and 2005: Region's forest and forest industry sector development influenced by government and industry policies". Joint UNECE Timber Committee and FAO European Forestry Commission Market Statement, 12 October 2004, www.unece.org/press/pr2004/04tim_n01e.htm.

Governments and trade association policies lay the foundation

The European Commission has now produced a synthesis report on implementation of the EU Forestry Strategy with a principal recommendation that an EU Action Plan for Sustainable Forest Management be developed. The action plan will include, *inter alia*, development of information about wood as a renewable and environmentally friendly resource. It also proposes to review existing practices to facilitate coordination, communication and cooperation between different policy sectors.

EFSOS forecasts the policy environment in which the forest sector will operate and states that society will continue to place many demands on the forest sector, but the capacity of the sector to meet some of these demands will be constrained. EFSOS also re-emphasized that policies outside the forest sector have a huge impact on the sector, often negative. A UNECE/FAO workshop will explore these cross-sectoral aspects in October 2005.[7]

In the EU, industry federations launched a Technology Platform Initiative for Innovative and Sustainable Use of Forest Resources[8] in February 2005. It seeks to implement a R&D roadmap. This effort is similar to the Agenda 2020 Program of the American Forest and Paper Association and US Department of Energy, an initiative launched in 1994.

Confusion on deforestation

There are strong public concerns about deforestation. Even though it does not exist at a significant level in the UNECE region, it tarnishes the reputation of the sector. Tropical deforestation confuses consumers, leading them to think wrongly that deforestation exists in Europe and the CIS. Overcoming this misperception is a challenge to governments, industry, and intergovernmental and non-governmental organizations.

Illegal logging hurts the sector

Illegal logging does exist in the UNECE region, as documented by a UNECE/FAO workshop on Illegal Logging and Trade of Illegally-derived Forest Products, held in September 2004. The workshop found that within the UNECE region, the illegal timber trade is below 5% in most countries, and below 1% in many countries. However, some exceptions exist: for example, it was estimated to be as high as 35% of legal fellings by one country, and in the Russian Federation, official ministry estimates presented at the workshop were for "no more than 5%", while a recent study estimated that 15 to 20% may be illegal (AF&PA, 2004).[9] Illegal logging constitutes 8% to 10% of global wood products production[10] and a similar share of the global wood products trade, with environmental, social and direct economic costs to governments and national economies at about $15 billion annually.[11]

Countries recognized the seriousness of the problem, and the outcomes of the workshop described the consequences, extent, types and causes, and concluded with options for action to combat illegal logging and the trade of illegally derived forest products. The sector needs to implement the workshop's options for action to combat illegal logging and trade of illegally derived products in order to improve its image among consumers. Action items were offered to governments, industry and intergovernmental and non-governmental organizations.

Pressure from the international community to curtail illegal logging is strong and growing. Illegal logging and the associated trade in illegal timber are responsible for vast environmental, social and economic damage. Such activity robs governments in affected countries of revenue, impoverishes rural communities that depend on forest products for a living, and damages the image of the entire sector, in both developed and developing countries.

Certification can help

Is the answer certification of sustainable forest management and the production of certified forest products with traceability back to the forest via chain of custody certificates? Could this help promote wood and forests? Could it help curtail illegal logging? The

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[7] "Forests – Common benefits, shared responsibilities, multiple policies" www.unece.org/trade/timber/tc-docs.htm.

[8] www.forestplatform.org

[9] "'Illegal logging' and global wood markets: The competitive impacts on the U.S. wood products industry, 2004. Conducted for the American Forest and Paper Association by Wood Resources International LLC and Seneca Creek Associates, www.afandpa.org

[10] ibid

[11] World Bank 2001. *Controlling the International Trade in Illegally Logged Timber and Wood Products – a Revised Strategy for the World Bank Group*. Washington D.C., 30 July.

UNECE/FAO workshop on illegal logging indicated that certification could help, but that it is not the only solution, and that the two issues should not be mixed. Certainly in Europe and North America, local and national governments are implementing purchasing policies that call for proof of legality, and sometimes for certification of sustainable forest management. "Forest certification—Do Governments have a role?" is the subject of a policy forum to be held on 29 September 2005 at the annual Timber Committee session.[12]

Free trade?

In order to level the playing field for forest products trade, governments and trade associations support elimination of tariff and non-tariff barriers. However, despite the generally low level of tariffs, currently the forest products trade in the UNECE region is not barrier-free. A number of old trade disputes continue, for example, those under the US/Canada Softwood Lumber Agreement (SLA). Some government agencies and trade associations hope that part of the $4 billion in duties collected under the SLA can eventually be used to promote the forest products sector, both at home and abroad. In addition, anti-dumping duties have been enacted during the past year in order to protect domestic industries from low-priced, imported wood products. There are winners and losers with regard to all of these measures, depending on whether one is a manufacturer, a retailer, an importer, an exporter or a consumer.

Phytosanitary regulations on unseasoned wood packaging to prevent spread of insects and disease pose a barrier to use of wood pallets and other forms of wood packaging. There has been increasing concern in recent years about the spread of pests in wooden packaging material made of unseasoned (green) wood. In response to concern about spread of pests, the FAO Interim Commission on Phytosanitary Measures adopted a standard that countries can implement which calls for drying or treating wood packaging. An international phytosanitary mark has been agreed and trademarked and is now authorized for use. The industry fears substitution by non-wood packaging products.

Good start, maintain momentum

In summary, the forest products sector in the UNECE region capitalized on strong economic growth in 2004 and rose to record levels. It strengthened alliances between industry and governments to promote the benefits of wood products derived from sustainable forest management in the region. Through development of new and existing market channels and innovation the sector is competing globally. But we are not out of the woods yet. The 2004 gains were not region-wide, and some countries lag behind. Illegal activities in logging and trade exist within the region and outside, and consumer confidence will erode unless they are stopped. Deforestation outside the region continues to confuse consumers within the region. Certification of sustainable forest management and chain of custody tracing the source of production will assist in solving these problems. However, it is important that governments provide effective legal frameworks that support sustainable development of the sector, with consideration of adequate profitability to maintain viable industries and trade.

1.1.2 *Europe subregion developments*

European forest products markets were the strongest ever in 2004. They were even stronger outside the EU-25, as shown by higher consumption in all of Europe. This is confirmation of the EFSOS prediction that the centre of gravity of the forest industry will shift to eastern Europe, and eventually to the CIS. According to the new EU members, accession has been positive for the forest products industries in the new member States; for example, the reduction in customs formalities and other barriers have resulted in faster, less-costly delivery.

Most primary products markets had strong demand associated with improved economies in 2004. However the trend was not universal; for example, Germany's economy remained weak, yet demand for most primary wood products was sustained.

In 2004 and 2005, Europe was again struck by devastating windstorms. Slovakia's Tatras Mountains sustained up to 5 million m^3 of damage in November 2004. In January 2005, the Baltic Sea region was hit, causing 85 million m^3 of damage. Sweden sustained the worst damage in terms of windthrow volumes, at approximately 75 million m^3, the equivalent of a year's normal harvest. The excess supply of roundwood, both industrial roundwood and fuelwood, had ramifications throughout the UNECE region. Where forest damage occurred, clean-up operations took place immediately to maximize the fibre value before decay, insect damage and fire could set in. Countries exported their surplus and roundwood prices fell.

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[12] www.unece.org/trade/timber/docs/tc-sessions/tc-63/tc-63.htm

With the accession of 10 new countries in 2004 to the EU, the *Review* analysis ceases to compare east and west—now some most eastern European countries are EU members, i.e. the Baltic countries.

A labour dispute in Finnish paper mills in mid-2005 showed the sector's interdependencies. Finland is a major paper producer and exported 25% of the EU-25's paper and paperboard in 2004. Shortages resulted as buyers had minimized costly inventories and purchased by just-in-time delivery. The work stoppage affected pulp manufacturers in Finland, as well as sawmills, when the market for by-products evaporated. Sawmills in neighbouring countries, dependent on sales of wood chips for a third of their revenues, slowed or stopped operation during the strike. The sawmills' chip markets had already been negatively impacted by the oversupply of forest residues from storms earlier in the year, and with the oversupply of chips and sawnwood, prices tumbled.

In summary, while 2004 was a profitable year for Europe's sawnwood, panel and paper industries, the effect of the storms, the strike and continued weakness in some economies, mean that there are challenges to overcome in 2005 if growth is to continue at a record pace.

1.1.3 CIS subregion developments

Considerable difficulties continue to exist in the CIS countries' forest products markets. The year 2004 witnessed weak domestic demand for primary forest products, despite economic growth amongst the highest in the world, at over 8% growth in GDP. Consumption of panels and paper products increased, but at low volumes, while sawnwood continued its inexplicable downward spiral.

However, the CIS region's exports accelerated dramatically to new record levels. For example, sawn softwood exports from Russia leapt by 20% in 2004, panel exports by 40% and roundwood exports by 11%. Much of the exports were within the UNECE region, especially Europe, but there were increasing amounts going to Asian countries, especially China and Japan. Increasing volumes are being exported to the US, for example in 2004, sawn softwood exports to the US rose by 43%, reaching $24 million.[11]

Both the industry and the regional and national Governments recognize that the massive volumes of roundwood exports deprive the country of potential value-added processing, at least as far as primary products of sawnwood, panels and pulp. Policy measures have been implemented to encourage foreign direct investment.

Policies are being implemented to tackle illegal forest activities, for example, increased monitoring of illegal harvesting by space satellites. Other important forest sector policy issues of 2004 in Russia were the Kyoto Protocol ratification (and its coming into effect in spring of 2005 with new efforts to monitor carbon emissions), and debates about private ownership of forests in the context of a proposed Forest Code. The "forest wars" continue with regard to legal disputes over ownership and management of certain Russian pulpmills and forest operations.

1.1.4 North America subregion developments

Both the US and Canada posted high housing construction gains, together at over 2 million housing starts in 2004, with a similar forecast for 2005 on track as of mid-year. This, in turn, drove demand for all wood products, both primary and value-added, to record levels.

In the US, the voracious consumption of sawnwood, both for new housing and for the equally important repair and remodelling sector, resulted in record imports which put the subregion into a negative trade balance for the first time

With some of the world's greatest forest resources, the continued decrease in production of wood products by the US has created opportunities for exporters in Canada, and from offshore as well. Part of the reason for the decline in US production has been reduced availability of roundwood from National Forest System lands as they became progressively "locked up" because of environmental concerns. However, the ageing National Forests, and their oversupply of fuels, has resulted in more frequent and more devastating forest fires. In 2004, when a number of homes burned as a result of an out-of-control forest fire, the US Congress quickly ended debate and passed the Healthy Forest Restoration Act. The results of this law have already generated fibre from some National Forests as timber stand improvement operations are conducted to reduce fuel loads on the forest floor, and open canopies to reduce the spread of wildfire.

This is potentially a turning point in the diminishing harvests from National Forest System lands, as large forest areas are again open to silvicultural operations, and hence limited timber harvests. In the first implementation of the new law, a participatory approach to planning guaranteed acceptance of the thinning plan by all parties, including environmental NGOs. Already, new industries are starting to produce sawnwood and energy wood from the leases they have bought on federal forests.

Meanwhile in Canada, harvests are being reduced in 2005 in the eastern provinces of Ontario and Quebec, to return to sustainable levels. The mountain pine beetle outbreak in the interior of British Columbia has caused a turnaround in reduced harvests and production as the provincial government expands its massive salvage programme by substantially raising the allowable cut. Industry has responded with significant sawmill investments to process the increasing volumes of dead timber.

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[11] USDA Foreign Agriculture Service, www.fas.usda.gov/ustrdscripts/USReport.exe

The influx of furniture from China resulted in anti-dumping duties levied by the US in 2004. The US also levied duties on Brazilian plywood exporters in mid-2005. The protective measures are not only to support domestic furniture manufacturers, but also their demand for sawnwood and panels as well as labour.

1.2 Market sector developments

Some highlights of each market sector chapter are presented below, with detail on these and other developments in the individual chapters.

1.2.1 *Wood raw materials*

Roundwood removals reached record levels in the UNECE region in 2004 due to the highest ever demand for wood and paper products. Trade was active in 2004, and the windstorms in late 2004 and early 2005 in Europe accelerated exports from affected areas in the Baltic Sea region and Slovakia. CIS roundwood exports increased again, but exports fell in the other two subregions.

Governments' promotion of wood energy, in line with the EU policy to increase the use of renewable energy sources to 12% of consumption by 2010, resulted in a rise in trade of chips and pellets. The competition for wood between energy producers and pulp and panel manufacturers intensified. Sawmills have become efficient and are profitably processing small-diameter timber, often down to 10 centimetres at the top end, blurring the distinction between pulplogs and sawlogs. Landowners appreciate the growing woodfuel market, as it provides alterative market options. In general, the higher demand for roundwood resulted in higher prices, which were not always equally compensated for by higher product prices after processing.

1.2.2 *Sawn softwood*

Sawn softwood markets were stronger than ever in Europe and North America, but in the CIS, demand remained weak, although exports reached new highs in 2004. Many producers achieved record profits.

CIS exports to China are increasing, but continue to maintain market share in Europe and the Middle East. The Baltic Countries are not only importing greater quantities of industrial roundwood from Russia and Belarus, but are also importing more rough sawnwood, which is then dried, planed and grade stamped for re-export.

The US demand for sawnwood was at record levels in 2004. Despite the US/Canada Softwood Lumber Agreement's countervailing and anti-dumping duties on Canadian imports, they achieved record exports to the US. European exports to the US escalated; for example, Germany exported 1.4 million m^3 to the US, a rise of 63%.

In 2004, North American imports of sawn softwood exceeded European imports for the first time (including imports within each subregion). And with US imports rising over 15% in 2004, North America became a net importer of sawn softwood for the first time.

1.2.3 *Sawn hardwood*

Closure of hundreds of woodworking plants in the US over the last few years has negatively affected the demand for sawn hardwood. As a result, the entire region's hardwood market declined. US sawnwood exports increased in 2004, principally to the Asian destinations of China and Viet Nam. As in other market sectors, the US has increased its sawn hardwood imports from overseas.

In 2005, sawn hardwood producers started new associations. In the US, the Hardwood Federation was established with the objective of lobbying government. In Europe, the European Hardwood Export Council began with the objectives to promote hardwoods and to coordinate marketing and exports.

European production of sawn hardwood increased strongly in 2004, with increases in production capacity, as well as greater availability of sawlogs in eastern Europe. Trade was subdued. Similar to the US, the European hardwood market could also suffer from an influx of Asian furniture imports.

1.2.4 *Panels*

Panel markets across the UNECE region marked a record year in 2004. In North America, housing construction demand drove prices up and production responded. Capacity for construction panels, particularly OSB, is forecast to increase in line with forecasts for continued construction-related demand in the years ahead. While Canadian exports to the US rose, US imports from overseas rose more. The US levied anti-dumping duties on low-priced Brazilian plywood.

While European panel manufacturers had a good year in 2004, the current year has started slowly. Record high markets were recorded for particleboard, plywood, MDF and OSB, and prices rose. As is the case with the US, countries exporting inexpensive plywood received high anti-dumping duties, e.g. in the EU action was taken against China's plywood.

The CIS countries recorded the largest percentage gains in production and exports of panels in the UNECE region. Economic improvements have led to higher domestic consumption, mainly for furniture, some of which is exported. Russia's panel industry is restructuring in line with government policies to develop the sector, in part through foreign investment.

1.2.5 Paper, paperboard and woodpulp

Production and consumption of paper, paperboard and woodpulp increased to record levels in Europe in 2004; however neither North America nor the CIS have completely recovered their former levels. As one of the most energy-intensive forest products manufacturing sectors, the industry's profitability was constrained by higher energy costs. Despite increasing competition from outside the UNECE region, producers were able to increase exports substantially in 2004.

Owing to the major devaluation of the Russian rouble in 1998, and expansionary macroeconomic policy since 1999, Russia has had a continuous increase in output of paper and paperboard, more than doubling since 1996. However, output has yet to recover pre-transition levels. For the first time, in 2004 pulp exports from Russia declined as more of the increased production was used for domestic paper production.

1.2.6 Certified forest products

The area of certified forest increased by one third during the last year, totalling 241 million hectares worldwide by mid-2005, mainly due to an increase in Canada through the Canadian Standards Association scheme (graph 1.2.1). By mid-2005, approximately 95% of the certified forest area was in the UNECE region, with almost 60% of the world's certified forest area now located in North America and 36% in western Europe. Potential supply of certified timber, at 22% of timber consumption, exceeds demand. However some market segments, e.g. sawn hardwood, claim a shortage of supply. Despite a shortage in some particular market sectors, price premiums for certified forest products (CFPs) are not common.

More public procurement policies calling for CFPs as an assurance of sustainable forest management are developing in Europe. Procurement policies are increasingly becoming a driving force for certification and an important source of demand for CFPs.

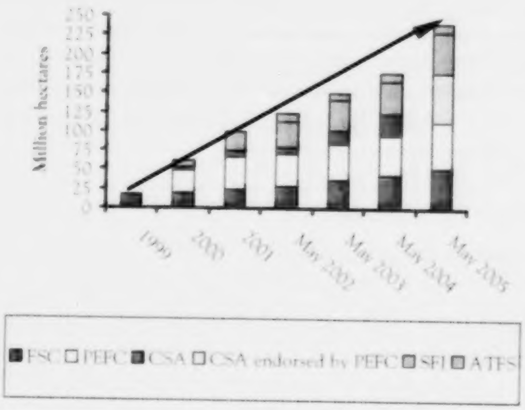
1.2.7 Value-added wood products

Marketing and manufacturing innovation is the key in the face of increasing global competition, and the UNECE region's manufacturers are successfully integrating primary and secondary production. Government policies in Russia recognize the need to diversify exports and to upgrade the standard commodity exports such as sawn softwood, to higher value products. However, this step requires investment in manufacturing infrastructure.

Trade of value-added wood products is growing in the UNECE region. Where labour and other manufacturing costs are high, e.g. in the US and western Europe, rather than manufacture furniture, windows, doors, mouldings and other wood products, these high-cost countries are tending to import them.

GRAPH 1.2.1

Certified forest area in the UNECE region 1999-2005



Notes: This graph shows all forests certified by major third party certification schemes listed below. As approximately 1.5 million hectares have been certified by more than one scheme, these are not deducted from one or the other scheme. The graph therefore shows a higher amount of forest area certified than there exists in reality.

FSC = Forest Stewardship Council; PEFC = Programme for the Endorsement of Forest Certification schemes; CSA = Canadian Standards Association system; SFI = Sustainable Forestry Initiative; ATFS = American Tree Farm System.

Sources: Individual certification systems, country correspondents and Canadian Forestry Certification Coalition, 2005.

Engineered wood products are an example of innovation in value-added processing. There was record production of glulam timber, I-beams and laminated veneer lumber (LVL) in North America in 2004. Research into new EWPs continues, supported by local and state governments, as well as industry associations. In both North America and Europe, trade associations have joined forces to promote value-added processing, and to promote the forest and forest industries sector in general.

1.2.8 Tropical timber

China, although largely a temperate zone country, has become one of the largest producers of tropical timber products based on imported tropical roundwood. For example, China's tropical plywood exports increased by

30% in 2003, and by 68% in 2004. China is now the fourth largest tropical plywood producer. As plywood quality improves, China is increasingly grading according to US or EU specifications.

Reflecting successful policies to promote value-added production, secondary processed wood product exports by tropical countries exceeded the value of primary wood product trade in 2004 for first time.

Total tropical sawnwood imports by EU countries increased by almost 8% in 2003, but were weak in 2004. Despite higher global demand and factors limiting supply, tropical timber prices did not rise significantly (except for plywood), largely because the main market for tropical sawnwood, the EU, was weak in 2004. Prices of many tropical timber products were affected by disruptions to trade due to civil unrest, CITES[15] listings of substitute species, currency fluctuations, export bans and import regulations and restrictions.

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[15] CITES is the Convention on International Trade in Endangered Species, www.cites.org

Chapter 2

Policy issues influencing forest products markets in 2004 and 2005[16]

Highlights

- Illegal logging constitutes 8-10% of global wood products production and a similar share of the global wood products trade, costing governments and national economies about $15 billion annually.
- Governments and several major non-governmental organizations around the world are beginning to act to curb the trade in "illegal timber" and products made from such timber.
- Momentum to promote the use of sustainably produced products is growing worldwide, with early efforts focused on materials used in building construction; certified timber products are required in all such programmes.
- Efforts are underway in many countries to promote wood use through code harmonization, encouragement of public investment in wood products technology development, and highlighting the sustainable development credentials of wood products.
- Following a long period of decline in funding for research into wood utilization and competitiveness in the European Union and in North America, current initiatives on both sides of the Atlantic are seeking to reverse this trend.
- Carbon trading and the creation of forest-based carbon registries are developing quickly within the EU and globally, with ratification of the Kyoto Protocol helping to stimulate action.
- The Kyoto Protocol came into effect after it was ratified by Russia in 2005, spurring action at several levels of government to target CO_2 and methane in emissions reduction programmes and strategies; the United States remains steadfast in its opposition to the protocol.
- Bioenergy production is growing: in Europe heat energy from woody biomass is a major focus; while in the US, biofuels industry development is particularly rapid, driven by subsidies and incentives from state governments.
- Trade disputes between forest sector trading partners, such as the ongoing sawn softwood dispute between the US and Canada, continue to make headlines.
- Phytosanitary regulations on unseasoned wood packaging to prevent the spread of insects and disease pose a barrier to the use of wood pallets and various forms of wood packaging.
- China's emergence as a major player in the global wood products manufacturing arena has major implications for principal wood products producing and consuming regions and poses new challenges vis-a-vis illegal trade of wood and wood products.

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[16] By Dr. Jim L. Bowyer and Dr. Ewald Rametsteiner.

Secretariat introduction

Government and forest products trade association policies affect forest products markets and vice versa. Forest products markets are not only affected by traditional market forces, but by government policies as well. The *Forest Products Annual Market Review* analyses policies that influence the production, trade, and consumption of forest products. Markets and policies are also influenced by available technology that can serve to change the range of options available to policy makers, manufacturers and marketers. The authors' choices of policy issues in the chapter are those currently influencing markets in the UNECE region. While most were discussed last year as well, they merit consideration this year due to new developments. An addition to this year's chapter is a summary of how China's trade and other policies are affecting UNECE region markets, and conversely, how countries and trade associations in the UNECE region are establishing policies in response to China's escalating wood products trade and demand. These policy issues will be discussed at the 27-28 September 2005 Timber Committee Market Discussions.

The secretariat would like to express our sincere appreciation to the same two authors as last year, Dr. Jim Bowyer,[17] Professor, Department of Bio-based Products, University of Minnesota, USA and Dr. Ewald Rametsteiner,[18] Forest Sector Policy Expert, Institute of Forest, Environment and Natural Resources Policy, University of Natural Resources and Applied Life Sciences, Vienna, Austria. Dr. Rametsteiner also co-authored Chapter 9, on certified forest products markets. We also thank Mr. Dieter Schoene, Senior Officer for Forests and Climate Change, Forestry Department, FAO, for his review of the section on climate change policy.

2.1 Chapter overview

This chapter focuses on the principal policies that influence markets for forest products, on the market forces most influential in driving change in established global markets and in public policy, and on new and emerging technologies that are likely to impact both markets and forest-related policy.

Issues discussed in the previous year's report are reaffirmed. However, because of space limitations the reader is referred to last year's *Forest Products Annual Market Analysis*, 2003-2004[19] for further discussion of those topics. Included in this year's report are:

2.2 Forest law enforcement, governance and trade

2.3 Initiatives to encourage the use of sustainably produced timber products

2.4 Forest sector development policies

2.5 Climate change policy

2.6 Wood energy policies

2.7 Trade policy and tariff and non-tariff barriers, including phytosanitary measures

2.8 The emergence of China as a major player in the wood products manufacturing arena.

2.2 Forest law enforcement, governance and trade

As noted in last year's *Review*, pressure from the international community to curtail illegal logging is strong and growing. Illegal logging and the associated trade in illegal timber are responsible for vast environmental, social and economic damage. Such activity robs governments in affected countries of revenue, impoverishes rural communities that depend on forest products for a living, and damages the image of the entire sector, in both developed and developing countries (figure 2.2.1). Since different stakeholders use different definitions of illegal logging, however, estimations of the extent of the problem are crucially dependent on the underlying definitions. For instance, environmental NGOs tend to use a broader definition of illegal logging than representatives of industry and governments (EFI 2004).

In 2001, the World Bank found that governments lose about $5 billion annually due to illegal logging, with a further $10 billion lost to the economies of producing countries (World Bank 2001). Other figures suggest that the illegal timber trade is worth more than $15 billion per year and that more than half of all logging activities in particularly vulnerable regions such as the Amazon Basin, central Africa, southeast Asia, the Russian Federation and some of the eastern European countries are illegal. One recent estimate places the percentage of illegal logging in Indonesia at 73%, in Malaysia at 35%, in Brazil at 80%, in Gabon at 70%, and in Cameroon at 50% (Brock 2004). Illegality is also viewed as a significant problem in eastern Europe and in the Baltic countries, and illegal harvesting is estimated to comprise 25 to 30% of the harvest in northwest Russia (EFI 2004).

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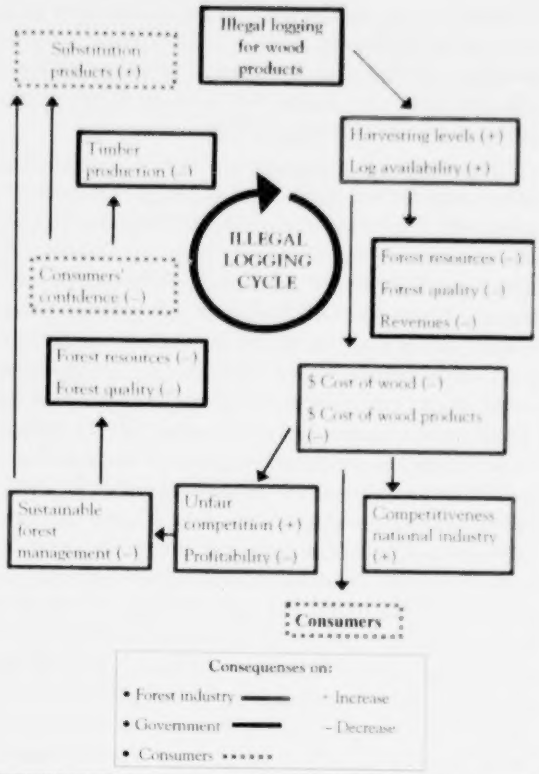
[19] www.unece.org/trade/timber/docs/fpama/2004/fpama2004a.htm

FIGURE 2.2.1

Consequences of illegal logging


Illegal logging for wood products
Substitution products (+)
Harvesting levels (+)
Log availability (+)
Timber production (–)
ILLEGAL LOGGING CYCLE
Consumers' confidence (–)
Forest resources (–)
Forest quality (–)
Revenues (–)
Forest resources (–)
Forest quality (–)
$ Cost of wood (–)
$ Cost of wood products (–)
Sustainable forest management (–)
Unfair competition (+)
Profitability (–)
Competitiveness national industry (+)
Consumers
Consequenses on:
• Forest industry
• Government
• Consumers
+ Increase
– Decrease

Source: Guertin, C-E. "*Illegal logging: Overview and possible issues in the UNECE region*". UNECE/FAO Workshop on Illegal Logging and Trade of Illegally-derived Forest Products in the UNECE Region, 2004. http://www.unece.org/trade/timber/docs/ sem/2004-1/qweb.pdf.

In the UNECE region, generally, trade in illegal timber is estimated as below 5% in most countries, and below 1% in many, but in one country illegal logging could comprise up to 35% of legal fellings, according to presentations at the Joint UNECE/FAO Workshop on Illegal Logging and Trade of Illegally-derived Forest Products held in September 2004.[20] However, countries within the region recognized the seriousness of the problem, and the outcomes of the workshop described the consequences, extent, types and causes, and concluded with options for action to combat illegal logging and the trade of illegally derived forest products.

A study commissioned by the American Forest and Paper Association (AF&PA) in 2004 suggested that illegal logging constitutes about 8-10% of global wood products production and a roughly similar share of global wood products trade (production and trade of logs, lumber and wood panels, excluding secondary wood products, furniture, or pulp and paper). AF&PA reported that, overall, 8% of the world's industrial roundwood production and 14% of the world's industrial roundwood exports are of suspicious origin (likely illegal). The report noted that as much as 23% of global plywood exports and about 6% of global lumber exports are suspicious. The calculations of value associated with clearly illegal and suspicious wood undertaken in the AF&PA 2004 study show an estimated value for associated lumber and plywood products of $23 billion. Of this amount, about $5 billion enters world trade, representing about 7% of the $69 billion in world trade of primary wood products. Using the Global Forest Products Model[21] to simulate effects on US producers, the study found the opportunity costs for US exporters linked to illegal wood products in the global market to be just over $460 million, in real dollar terms. Conversely, it is estimated that if roundwood of suspicious origin were to be removed from global production, US domestic prices would rise 2-4%, thus increasing the value of domestic US wood product shipments by perhaps as much as $500 to $700 million annually.

Illegal logging is also linked to the agribusiness sector, and particularly to palm and soybean plantations, which have expanded rapidly on land that was previously forested in South America, southeast Asia, west and central Africa and Australia. In Indonesia, where illegal logging is linked to establishment of oil palm plantations, around $3.8 billion has been invested in the oil palm sector over the past ten years, of which $3.1 billion has been by commercial and investment banks. $1.4 billion of the total investment came from European, particularly Dutch, banks (RIIA 2004). At current rates of growth, 350–400 million hectares of forest will be cleared for agriculture in the next 25 years, mostly in the tropics, of which a significant proportion will most likely be cleared illegally.

Tackling illegal logging is far from easy, due in part to the difficulties in distinguishing between legal and illegal timber. Also contributing to the illegal logging problem is a lack of enforcement capacity and coordination between enforcement agencies in many producing countries, but also in consuming countries, and a lack of appropriate legal frameworks generally for use against timber produced illegally elsewhere.

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[20] www.unece.org/trade/timber/docs/sem/2004-1/sem-2004-1.htm

[21] Global Forest Products Model by Joseph Buongiorno, Shushuai Zhu, Dali Zhang, James Turner, David Tomberlin. www.forest.wisc.edu/facstaff/buongiorno/book/GFPM.htm

A fundamental step in addressing trade in illegally logged wood is identification of legal products. The use of technological solutions to undermine endemic and apparently intractable corruption in some key government agencies in timber-producing countries is considered to have significant potential. As in certification, comprehensive chain-of-custody monitoring of every stage of production, processing, export and import, as well as independent third-party auditing, would be required.

Given the severity of the problem, a range of international initiatives has been undertaken. The World Bank Forest Law Enforcement and Governance task group (FLEG) held a series of conferences focused on illegal logging in east Asia (2001) and in Africa (2003), and will sponsor another in Russia in 2005. The EU, in its Forest Law, Enforcement, Governance and Trade (FLEGT) initiative, has set up an Action Plan and has put forward a proposal for a licensing regulation as well as a mandate for negotiating bilateral and multilateral agreements. The licensing proposal is controversial, primarily because of questions about cost and effectiveness. A study undertaken by Chatham House (RIIA 2004) examined probable impacts of the EU FLEGT initiative on trade, using a standard impact assessment approach. It found the likely impacts of a legal licensing scheme to be limited, with the magnitude of impact directly correlated to the degree of export orientation of producer countries towards the European Union.

In addition to the EU's proposed licensing scheme, a review of existing national legislation and additional legislative options for both the national and EU level are under consideration under the FLEGT initiative. Key areas for consideration include anti-money laundering legislation, criminal legislation such as laws addressing the transport and sale of stolen goods, and the possibility of a prohibition on the import of illegally produced timber into the EU.

In March 2005 the G8 Environment and Development Ministers issued a statement recognizing the impacts of illegal logging, and identifying steps that both timber producing and consuming countries could take to address trade of illegal timber (G8 2005). This action bolsters efforts of individual governments to promote legal products through procurement policies and licensing, to better control sources of finance and investments, and to impose sanctions against illegal products (e.g. the pending EU FLEGT legislation and the Lacey Act in the US). In April 2005, subsequent to the G8 statement, Germany presented a draft law that would outlaw import or marketing of wood sourced illegally in non-EU countries. Under this law, German timber companies will be obliged to certify that the timber they import or use was procured legally. This goes beyond what is currently proposed by the European Commission. As with any other proposal aimed at some level of regulation of import, export and trade of timber and timber products, this initiative also raises the issue of World Trade Organization (WTO) compatibility.

Illegal logging is currently quite high on the agenda of many international bodies and processes. One area in which action has recently been stepped up is through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). CITES has begun to address the well-documented illegal exploitation of, and international trade in, Ramin, the timber and products of which are generally bought in developed countries. At a recent meeting of the Conference of the Parties to the Convention in October 2004, Indonesia requested an upgrade of the Ramin listing to Appendix II, including a controversial annotation that it should include all parts and products. Despite concerns from Malaysia that its legitimate trade must not be penalised, both the proposal and annotation were accepted by consensus. This is the first time that an Appendix II listing has been made for parts and products of a commercial species. The issue of illegal logging is also addressed in the currently ongoing renegotiation of the International Tropical Timber Agreement, 1994, set to expire in 2006. ITTO's work on forest law enforcement and illegality will continue and quite likely be strengthened under the new agreement.

In addition to government-driven processes, a range of private or quasi-governmental initiatives have taken shape to address illegal logging. This includes initiatives by environmental NGOs, the timber trade itself, and research institutions such as the UK's Royal Institute for International Affairs (Chatham House). For instance, four European Trade Federations (the British, Dutch, French and Belgian) have joined together with the Tropical Forest Trust to source legal timber from Indonesia, Malaysia, Cameroon and Gabon.

There is a growing awareness among policy analysts that well-intended policies or regulations can actually encourage illegal logging when sufficient care is not exercised in their development. Examples of such policies are those that pose high administrative burdens on owners of small-scale properties or those that are unnecessarily complex.

2.3 Initiatives to encourage the use of sustainably produced timber products

As noted, encouragement of the use of sustainably produced timber products is emerging currently from both governments and non-governmental organizations. An example is provided by the Danish guidelines, published in 2003, that aim to help purchasers of tropical timber ensure that wood is from verifiably legal and, ideally, sustainable sources. Purchasing in accordance with the policy is a voluntary measure for public and quasi-public procurement agencies. No effort is made to check the veracity of compliance declarations. With respect to the sustainability issue, the Danish Government has included an intermediate step between legal and sustainable wood, consisting of forest sources that are "progressing towards sustainability". The Danish actions to recognize an intermediate step between sustainability and legality meshes with increasing recognition within the environmental non-governmental organizations (ENGO) community that a phased approach to forest certification can be useful in stimulating positive change, even if the near-term likelihood of full certification is low (ITTO 2005). The Danish approach to certification schemes is defined by the Government's clear commitment to Forestry Stewardship Council (FSC) standards. A recent proposal seeks to make the Danish national policy mandatory for all timber for the central government and all local governmental units (Van Den Biesen, 2004).

In contrast to Danish initiatives, the UK has developed policies that require 100% legality as well as demonstration of sustainability through inclusion of at least 70% certified raw material in all imported wood products. Phase One of what is known as the Central Point of Expertise on Timber (CPET) was an assessment of current certification schemes to establish which of them would meet UK governmental requirements. The outcomes of the study will be used as a basis for revisions to the current published guidelines for procurement officials, and efforts have begun to communicate the findings to public-sector buyers (table 2.3.1). Full implementation of the revised guidelines will occur around mid-2005.

With respect to the Sustainable Forestry Initiative (SFI) programme, it is noted by CPET that the current approach to chain-of-custody does not report the proportion of certified and non-certified raw material in a product. Because of this shortcoming, it is not possible under the current SFI programme to guarantee adherence to the CPET standards.

The UK Government has indicated that it is willing to work with those schemes that do not currently meet the necessary criteria and is committed to a transparent process that will allow schemes to be reassessed as they work towards compliance. It is felt that engagement of this sort will allow for more flexibility among suppliers and result in better competition and lower prices.

Within the US there is as yet no discussion of preferential government purchasing of certified wood, but there is considerable activity related to certification of forests owned and managed by various governmental units. March 2005 marked a potentially significant development that could impact management of over one eighth of US forestlands, when the US Forest Service announced that forest certification systems would be tested in six of the forests within the National Forest System. Up to this point, leading environmental organizations, as well as FSC, have vigorously opposed any consideration of certification of federally managed forests. The Forest Service has not announced which schemes it will test.

TABLE 2.3.1

Compatibility of various forest certification schemes with United Kingdom Governmental requirements for imported timber, 2005

Scheme	*100% of product verified to be of legal origin*	*70% or more of product volume verified to have been sustainably produced*
CSA	All certified products	Products containing more than 70% certified raw material
FSC	All certified products	Products containing more than 70% certified or recycled raw material
MTCC	Products containing 100% certified raw material	Does not meet standard [1]
PEFC	All certified products	Does not meet standard [1]
SFI	All certified products	Does not meet standard [1]

Notes: CSA = Canadian Standards Association. FSC = Forestry Stewardship Council. MTCC = Malaysian Timber Certification Council. PEFC = Programme for the Endorsement of Forest Certification schemes. SFI = Sustainable Forestry Initiative. [1] Certificates from these schemes are acceptable if accompanied by additional confirmation that the requirements for legality and sustainability are being met. As of early 2005, all 3 schemes are being adapted to meet the full requirements.

Source: Central Point of Expertise on Timber (CPET), UK, 2004 (http://www.illegal-logging.info/documents.php#153)

An example of a non-governmental initiative to encourage use of sustainably-produced products is the **LEED (Leadership in Energy and Environmental Design) Green Building Rating System** of the US-based Green Building Council (USGBC). The USGBC was founded in 1993 and is a national, not-for-profit organization. The programme originally focused on new construction (LEED-NC), and by the end of 2004, some 1,700 buildings had been LEED-certified and more than 7,800 LEED professionals had been certified worldwide. This programme was expanded in 2004 and 2005 with release of new standards for existing buildings, commercial interiors, core and shell buildings as well as for residential homes. Today, there are LEED-registered and certified projects in over a dozen countries, including Canada, China, and India. Under the LEED programme, points are awarded in a number of categories, including several related to wood and wood products. The use of FSC-certified wood and wood products is required in all LEED programs.

Green building organizations have recently been established in several countries outside the US as well. In 1999, the World Green Building Council (WorldGBC) held its founding meeting, with the US, Australia, Spain, Canada, Japan, India, and Mexico participating. In North America, both Canada and Mexico have green building programs. The Canada Green Building Council was launched in 2003 and has adapted the LEED programme for use in certifying buildings in that country. Canada also has Green Globes, a web-based building performance tool that is considered a competing system to LEED. Green Globes, initiated in 2002, has also been modified for use in the US and is being introduced to the US market this year. In addition to LEED and Green Globes, there are a number of systems operating across the US for evaluating and recognizing green buildings, and especially residential buildings. In January 2005, the National Association of Home Builders (NAHB) introduced Model Green Home Building Guidelines. Under these guidelines, points are awarded for use of wood certified under FSC, CSA, SFI, PEFC, and the American Tree Farm System (ATFS). Participation in all of these programmes is market driven, with leadership provided by architects, builders, lenders, specifiers, and others who have an interest in improved environmental performance of buildings.

A major EU green building initiative is the Building Research Establishment's Environmental Assessment Method (BREEAM) programme, a subsidiary of the UK Foundation for the Built Environment. Like LEED, the BREEAM programme involves an eco-based point system that applies to a number of building types (including offices, homes, industrial buildings, retail stores, schools), and a number of building attributes. Like other green building programmes, points are awarded for the use of certified wood products, and in this case, certification under the FSC programme is required. BREEAM is recognized beyond the UK as evidenced by the fact that the European Climate Change Programme Sustainable Action Plan used BREEAM in establishing targets for government purchasing. BREEAM has also been adapted for use in Canada in environmental evaluation of existing buildings.

Green building initiatives in Europe will likely receive a boost in the near future as a result of an EU Directive on the Energy Performance of Buildings (European Parliament/Council, 2003). In 2002, the European Parliament passed a directive to improve the energy performance of buildings across the Community, thus helping reduce carbon emissions and meet the EU's Kyoto Protocol commitments. The Directive is to be implemented by 4 January 2006. One of the key preliminary tasks, the work of harmonizing the methods for calculating the energy efficiency of buildings, is underway. A draft document that will provide the basis for consensus building among Member States will be in circulation in the near future.

National initiatives are under way in a range of European states to promote the use of wood. For instance, in France the ministry responsible for forestry has recently established a goal of strengthening the promotion of wood as a construction material, and has taken action to create a government-industry platform, "France Bois Forêt", to strengthen research and development capacity, and to promote the use of wood in construction and bioenergy production.

2.4 Forest sector development policies

A range of strategic studies, as well as policy plans and programmes, have recently been revised and proposed. These are directly relevant for the future development of the forest sector, especially in the EU. Taken together, they will most likely have a profound impact on the sector through the directions envisaged by these policies and plans as well as the funds targeted for them.

Following extensive stakeholder consultation, the European Commission, (EC) has now produced a synthesis report on implementation of the EU Forestry Strategy (EU, 2005a). Its main recommendation is that an EU Action Plan for Sustainable Forest Management be developed, which will include, among a number of actions, development of information about wood as a renewable and environmentally friendly resource. It also proposes to review existing practices to facilitate coordination, communication and cooperation between different policy sectors.

In mid-2004 the EU Commission considered a proposal for a Council Regulation on Support for Rural Development from the European Agricultural Fund for Rural Development, which outlines funding measures for rural development involving forestry for the period 2007-2013 (EU, 2004). This proposal includes considerably strengthened funding for rural development, and is intended to serve as the basis for the national strategies and programmes. It has three major objectives: 1) Increasing the competitiveness of the agricultural sector (including forestry) through support for restructuring; 2) Enhancing the environment and countryside through support for land management; and 3) Strengthening the quality of life in rural areas and promoting diversification of economic activities through measures targeting the farm sector and other rural actors. It also provides a basis for fuller integration of forestry into rural development. A new Eurobarometer survey carried out in the 25 EU Member States indicates broad citizen approval for a shift in EU farm policy from production support to protection and development of the rural economy and to direct support for farmers.

The recently published European Forest Sector Outlook Study (EFSOS) contains a number of observations about the future policy environment in which the forest sector will operate. The implications of these realities are, *inter alia*, that society will continue to place many demands on the forest sector, but the capacity of the sector to meet some of these demands will be constrained (UNECE/FAO, 2005). EFSOS also re-emphasized that policies outside the forest sector often have a huge impact on the sector and are not always supportive, and observed, alarmingly, that the forest sector is increasingly marginalized in policy debates within countries.

Implications for those within the forest sector are that the sector is fragmented and should speak with one voice if it is to be heard in broader policy debates. It is also essential to engage in improved consultation within governments between forestry policy makers and policy makers in other sectors (e.g. environment, agriculture, energy, industry). Greater collaboration between countries and across different stakeholder groups is extremely important for the forestry sector. EFSOS also makes clear that forestry policy makers (supported by all stakeholders) should speak out in favour of the promotion of sustainably-produced wood products.

EFSOS points out that from a policy perspective, it is critical that forestry policy makers emphasize how the sector can contribute to solving some of the major concerns of society. For instance, the forest sector could contribute to biodiversity conservation with significant increases in protected areas if it were adequately funded. In addition, the forest sector could make a significant contribution to the goals of renewable energy policy.

Within North America, issues related to forest sector positioning are being addressed by several states individually, with assistance in some regions from the US Forest Service. The states of Maine and Minnesota, for example, have launched governor-led initiatives to evaluate the global competitiveness of forest-based industries within their states and to develop recommendations for action within the context of sustainable forest management. In the southeast, the US Forest Service, in conjunction with a number of state departments of natural resources, led a Southern Forest Resource Assessment – a comprehensive evaluation of forest resources within the region and of environmental, economic and social trends that would be likely to impact forests and forest-based industries.

On the research and development front, in early 2005 the US General Accounting Office[22] (GAO) initiated a study of the nation's research capability in wood science and technology. The study follows a 2002 National Research Council examination of forestry research capacity (National Research Council, 2002), and a 2004 report by the Society of Wood Science and Technology. Both reports indicated a trend of declining forestry and wood-products-related research capacity and investment nationally and contained recommendations for addressing the problem.

In the EU, an industry-led Forest Sector Technology Platform initiative was launched in Brussels in February 2005 (FTP 2005). The European Confederation of Woodworking Industries (CEI-Bois), the Confederation of European Forest Owners (CEPF) and the Confederation of European Paper Industries (CEPI) have set up a project to establish a Technology Platform for the forest-based sector. This project seeks to establish and implement the sector's R&D roadmap for the future and is supported by a wide range of different stakeholders. The Strategic Research Agenda (SRA), currently being drafted, is based on a Vision 2030 Document for the European forest-based sector, which was officially published as part of the 15 February, 2005 Brussels event (FTP 2005). The SRA is scheduled to be finalized by December 2005 and is expected to be an important reference document for the 7th Framework Programme for research and technological development of the EU. This effort is similar to the Agenda 2020 Program of the American Forest and Paper Association and US Department of Energy, an initiative launched in 1994.

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[22] The GAO is a US Congressional investigative agency that provides assistance to help the Congress make effective oversight, policy, and funding decisions.

The EU's framework programmes for research and technological development are the Commission's main instrument for funding European research. Although the current 6th Framework Programme (FP6) will operate until 2006, debates have already started on the budget, structure and priorities of Framework Programme 7 (FP7). The Commission presented its official proposal on FP7 on 6 April 2005. The Commission proposes to more than double the current EU research budget to an average of 9.6 billion euros a year (67 billion in 7 years) instead of the current yearly average of 3.8 billion euros. However, at the time of writing in June 2005, it was expected that the EU research budget for the period 2007-2013 will suffer cuts during the negotiations on the overall EU budget. The larger budget is in line with the expected key contribution that the FP7 is designed to make to the re-launched Lisbon strategy, focusing on *"innovation and knowledge for growth"*. In the process the number of budget lines has been drastically reduced overall, so that forest issues as such are no longer separately identifiable.

2.5 Climate change policy

The Kyoto Protocol went into effect on 16 February 2005 after Russia ratified the treaty. As a result, parties to the protocol must make important policy decisions about specific activities and definitions within the Land Use, Land-use Change and Forestry (LULUCF) sector. In fulfilling Articles 3.3 and 3.4 of the Kyoto Protocol and subsequent decisions in the Marrakech Accords, each Annex I Party to the Protocol must, by 31 December 2006, adopt a single definition of the term *forest* for its inventories and reporting under the Kyoto Protocol. Countries also have to select any or all of the following human-induced activities under Article 3.4 in the first commitment period: re-vegetation, forest management, cropland management, and grazing land management. If a country has elected to account for any of these activities, it must account for carbon stock changes on all lands subject to these activities in the first and all future commitment periods. In addition, countries must have in place no later than by the end of 2007, systems for monitoring and reporting carbon sources and sinks, including forests.

By the end of 2005, parties to the Protocol are required to initiate negotiations for commitments after 2012, as specified in Article 3.9 of the Protocol. In addition, the Kyoto Protocol will be reviewed at the second session of the Conference of the Parties after the Protocol has entered into force. In this light, discussion about the treatment of LULUCF post-2012 has already started, and different options for inclusion of LULUCF in an international climate change agreement beyond 2012 are under consideration, ranging from a continuation of the Kyoto Protocol and Marrakech Accords Agreements on LULUCF to more far-reaching changes. A particularly hot issue is inclusion of "compensated reduction" of avoided deforestation by developing countries. As deforestation contributes to greenhouse gas (GHG) emissions, accounting for around 25% of total emissions, proponents of such schemes argue that inclusion of mechanisms addressing deforestation, and possibly degradation, would considerably enhance comprehensiveness, effectiveness and participation of a larger group of countries in the reduction of GHG emissions. The question of how land use, land use change and forestry (LULUCF) activities should be treated in a future regime is an issue seen by many observers as potentially politically contentious.

The regulatory framework of the carbon market has solidified considerably over the past 12 months, with the start of operations of the EU Emissions Trading System (ETS) on 1 January 2005 and the entry into force of the Kyoto Protocol. The carbon market encompasses both the generation of emission reductions through project-based transactions where a buyer purchases emission reductions from a project that produces measurable reductions in GHG emissions or carbon offsets, and trading of GHG emissions allowances allocated under cap-and-trade regimes such as the ETS.

The market for project-based emission reductions is still growing steadily: 107 million metric tons of carbon dioxide equivalent (tCO_2e) were exchanged through projects in 2004, a 38% increase relative to 2003 (78 million tCO_2e) (Lecocq, 2004). There are four active markets for GHG allowances as of May 2005 not all of which conform to Kyoto rules: the ETS, the UK Emissions Trading System, the New South Wales trading system and the Chicago Climate Exchange. Volumes exchanged on these allowance markets have increased dramatically compared with last year, and are now comparable to the volumes exchanged through project-based transactions. The cumulative volume exchanged on these four markets from January 2004 to March 2005 was about 56 million tCO_2e. Of the four allowance markets listed above, the ETS is the largest, with an estimated 39 million tCO_2e exchanged since January 2004, the bulk of which was transacted since January 2005. The ETS emission allowances, which conform to the Protocol, do not allow import of project-based sink credits, but do allow domestic forestry credits and government purchases of project-based carbon sink credits to count towards country obligations. Canada, another Kyoto signatory, will introduce a similar programme in 2008. A review of the ETS is scheduled for 2006.

In Australia, the New South Wales (NSW) Greenhouse Market is operating and the first forestry accreditation occurred in October 2004. It is deemed likely that the NSW market will expand to other states in 2006 or 2007. The NSW Greenhouse Market Carbon Sequestration Rule covers the capture and storage of carbon out of the atmosphere and its storage in eligible forests. An eligible forest must meet the definition of afforestation or reforestation that is specified by the United Nations Framework Convention on Climate Change. The Chicago Climate Exchange (CCX), a private initiative, is now in its second year of operation. Trades involve project-based offsets from farm and forest sinks, methane destruction, and eligible offset projects in the US and Brazil. Total volume traded in CCX since its launch in late 2003 exceeded 2.5 million tons as of May 2005. Several major international forest companies are official members of the CCX initiative, including Stora Enso, International Paper and the Mead Corporation. Emission reductions traded here do not necessarily meet the stringent standards of the Kyoto Protocol and Marrakech Accords.

The EU and Canadian actions stand in sharp contrast to the US, which has neither ratified the Kyoto Protocol nor set greenhouse gas emissions targets. A recent report from the Energy Information Administration (EIA, 2004) concluded that the US could meet mandatory targets for reducing greenhouse gas emissions without significant harm to the economy. The report estimates that the economic cost of capping greenhouse gas emissions would be a reduction in gross GDP of just 0.4 to 0.5%. Meetings between an EU delegation and key decision makers on Capitol Hill in April 2005 have opened up the prospect of a new EU-US entente on climate change cooperation after 2012. In a statement released by the European Commission, it was reported that the results of these talks could well mark the beginning of a new phase of US-EU cooperation, including cooperative efforts toward an international climate change regime after 2012. According to the Commission, an agreement was reached to re-launch a high level group of EU and US representatives to discuss policies on combating climate change (EU, 2005b).

Trading of emission allowances or credits involving the forest sector have, meanwhile, become more and more frequent. The World Bank Bio-carbon Fund will soon begin investing in carbon sink projects in developing countries. In addition, the World Bank has mobilized a new fund to demonstrate projects that sequester or conserve carbon in forest and agro-ecosystems. The Fund, a public/private initiative administered by the World Bank, aims to deliver cost-effective emission reductions, while promoting biodiversity conservation and poverty alleviation. The Fund started operations in May 2004 and had investment capital of $43.8 million as of March 2005.

There is growing interest across the UNECE region in terrestrial sinks as a low-cost alternative to fuel switching and reduced fossil fuel use for lowering atmospheric CO_2. As a result of agreements reached at Bonn and Marrakech, carbon offsets have taken on increased importance in meeting Kyoto targets for the first commitment period. However, although afforestation and reforestation projects are eligible for the Clean Development Mechanism (CDM), for the first commitment period (2008-2012) of the Kyoto Protocol, credits from CDM projects from LULUCF are limited to 1% of Annex I base year emissions per year, roughly 33 million tons of carbon. Further, no baseline and monitoring methodology for afforestation and reforestation CDM project activities has yet been approved by the CDM Executive Board. In a recent study, meta-regression analysis was used to examine 981 estimates from 55 studies of the costs of creating carbon offsets using forestry. Baseline estimates of costs of sequestering carbon through forest conservation, currently an ineligible activity, were found to be in the range of \$12.71-\$70.99/tCO_2. Tree planting and agroforestry activities were found to increase costs by more than 200%. When post-harvest storage of carbon in wood products, or substitution of biomass for fossil fuels in energy production, were taken into account, costs were lowest at \$3.42-\$18.67/t CO_2. (Van Kooten et al., 2004).

There is increasing interest in a GHG accounting framework for the forest sector within the US, a reality reflected in a recent California law requiring creation of a protocol that provides incentives for forest landowners to create carbon sinks through reforestation and forest conservation activities. Forest carbon registries are also reportedly being developed in the northeast US as well as for the states of Georgia and Oregon.

New Zealand introduced a bill in parliament in early May 2005 that will allow the transfer of carbon credit ownership to forestry owners who manage on long rotations for permanent forest cover. The New Zealand Government has retained ownership of sink credits and accumulating from domestic, post-1990 forest plantings. These credits will be retained and managed by the Government, at least for the first commitment period. The Government, rather than forest owners, has also assumed the liability created by the Protocol for deforestation, up to a specified cap of 10% of forests expected to be harvested during the Protocol's first commitment period (this equates to 21 million tons of CO_2 emissions).

The establishment of institutional structures related to financing carbon projects and trading in carbon emission rights and offsets has an increasingly visible impact on how forestry is perceived in a number of countries with large and competitive forest sector industries. This important development will raise the importance of the role and function of forests for the future. However, its significance will vary considerably between regions, depending on the amount of land available for afforestation, including for bioenergy production (see below). Given that traditional forestry and related policies have thus far been on the fringes of this new development, agricultural and energy policies could dominate forest policy.

2.6 Wood energy policies

Biomass as an energy source has gained considerable interest recently for several reasons, including the dramatic rise in oil prices to around $60 per barrel. It is also seen as one potentially useful contribution to the fulfilment of commitments under the Kyoto Protocol since the combustion of sustainably produced biomass is carbon neutral, and because expansion of carbon-sequestering forest reserves can be counted against carbon reduction targets under certain circumstances. As a result, biomass energy initiatives are underway within many EU countries. Although the US has not adopted specific carbon reduction targets, a number of states are aggressively pursuing alternative energy strategies, including energy from biomass, with assistance from the National Renewable Energy Laboratory.

Biomass can be used to produce electricity, heat for production of steam in local boilers or in district heating systems, or liquid fuels for use in transportation. Bio-based liquid fuels are currently derived from starch obtained from agricultural crops, but new technologies allowing production of such fuels from cellulose will soon move wood to centre stage in the liquid fuels arena.

Wood is currently the most important biomass resource for energy production in the EU-15, the source of over three quarters of biomass-derived energy in 2001; wood fuel appears to account for more than one third of all forest removals (UNECE/FAO, 2005). Wood also accounts for just over one half of all renewable energy produced in the EU-25 (UNECE/FAO, 2005a). France is the leading wood energy producing country with around 22% of total wood energy production of the EU-15 members, followed by Sweden and Finland (Table 2.6.1). Together, these three countries accounted for more than 50% of all primary energy produced from wood in the EU 15 in 2003. Leading producers of primary energy from wood biomass, as a percentage of total primary energy consumption, are Finland, Sweden and Austria (table 2.6.1).

An EU goal, articulated in the EU Community Biomass Action Plan, is for a doubling by 2010 of the share of total energy consumption provided by renewable energy, from 6% to 12%. Another goal, outlined in an EU Commission Directive in 2001 is the replacement of 2% of traditional transportation fuels by bio-fuels by 2005, and 5.75% of such fuels by 2010. Wood is likely to play a significant role in future bioenergy development.

TABLE 2.6.1

Primary energy from wood in the European Union, 2003

Country	*Primary energy from wood (million m.t. oil equivalent)*	*% of total primary energy consumption accounted for by wood*
France	9.28	3.6
Sweden	7.92	15.2
Finland	6.31	21.9
Germany	4.81	1.4
Spain	3.73	2.7
Austria	3.19	9.7
Portugal	2.41	9.5
Italy	1.46	0.8
Denmark	1.09	5.6
Great Britain	0.94	0.4
Greece	0.88	2.6
Netherlands	0.46	0.5
Belgium	0.40	0.6
Ireland	0.14	0.9
Luxembourg	0.01	0.3
Total EU-15	43.00	2.9

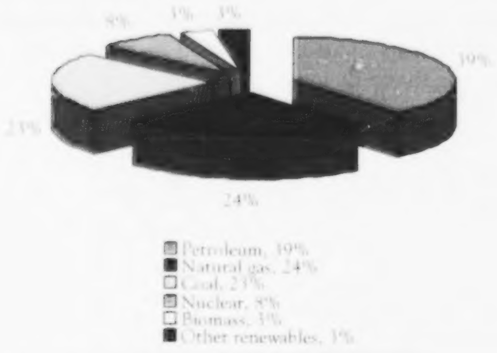
Sources: EurObserver, 2004. Total primary energy consumption data obtained from US Department of Energy, 2004.

Biomass currently provides less than 3% of US energy needs, but almost one half of energy from renewable energy sources (graphs 2.6.1 and 2.6.2). Today in the US, about 173 million metric tons of biomass is used annually for production of energy or bio-products that directly displace petroleum-based feedstocks. Some 87 million metric tons, or slightly more than 50% of energy from biomass, is produced by the forest products industry for use in powering manufacturing operations. As a result, this industry has a high degree of self-sufficiency, as over one half of all energy used in the primary forest products industry is self-generated.

The potential contribution of biomass to US energy production is far greater than the current level. As noted by Perlack et. al. (2005), if considering only agricultural and forest land and assuming only modest changes in agricultural and land management practices, there is potential for annual production of over 1.2 billion dry metric tons (dry weight) of biomass in the US. This volume is more than seven times the current volume of biomass consumed for production of bioenergy and bio-based products; about 27% of this is woody biomass that could be sustainably removed from the nation's forest lands and gleaned from current waste streams. A part of the woody biomass would come from non-commercial forest thinnings conducted for the purpose of reducing wildfire danger. Currently, the thinning of vast areas of forests is planned as part of the Healthy Forests Restoration Act (US Congress, 2003). Lacking markets for material removed in thinning, associated costs are prohibitive. However, the existence of woody fuel markets is expected to significantly offset the costs of silvicultural treatment.

GRAPH 2.6.1

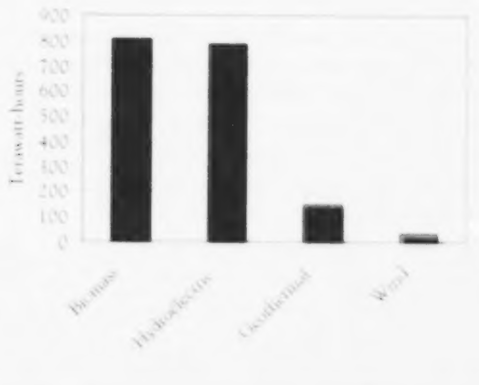
United States energy consumption by fuel type, 2003



Source: Perlack, et.al. 2005.

GRAPH 2.6.2

Consumption of renewable energy in the United States, 2002



Note: One terawatt-hour corresponds to one billion kilowatt-hours.

Source: Oregon Department of Energy, 2004. "An overview of biomass energy". http://www.energy.state.or.us/renew

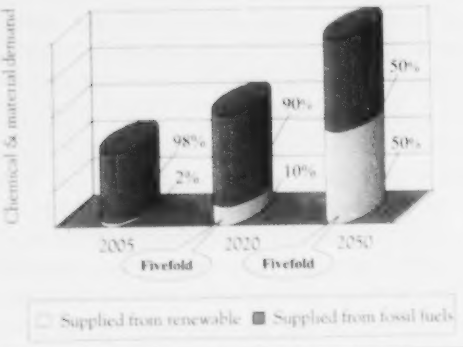
The US Department of Energy has assumed that three fourths of the 1.2 billion metric ton volume, or 0.9 billion metric tons, will be used for production of biomass-derived energy by 2030. Compared to current energy consumption, this quantity of biomass would supply 5% of the nation's power, 20% of its transportation fuels, and 25% of its industrial chemicals and chemical feedstocks. This goal is equivalent to 30% of current petroleum consumption.

Presently, all bio-based liquid fuels manufactured in the US are produced from agricultural crops. As noted earlier, wood is likely to play a significant role in liquid fuels production as ethanol production shifts from a starch to a cellulose pathway. A number of US states are using subsidy programmes, incentives and mandates to stimulate bio-fuels development. In 2004, a cornstarch-based ethanol industry operating primarily in the east-central (midwestern) region produced 12.9 billion litres, up 21% from 2003. This volume was equivalent to about 2.5% of total US gasoline consumption. Estimates project that production of cornstarch-based ethanol could rise to as much as 38 billion litres in the relatively near term, but that a change in technology to a cellulose-to-ethanol conversion system will be needed to rise above the 38 billion litre level. Ultimately, the annual production potential of ethanol from biomass in the US is estimated at 190 billion litres, of which as much as 30% could be produced from wood; to put the 190 billion litre number in perspective, gasoline consumption in the US in 2004 was 525 billion litres.

Because reduced availability and use of petroleum will adversely impact the availability of petroleum-derived products, a major thrust of US bioenergy programs involves industrial chemicals and materials. An example of what may lie ahead is provided by a 1999 industrial chemicals and materials future scenario developed by the US Department of Energy. The authors envisaged that 10% of industrial chemicals and materials would come from renewable resources by 2020 (approximately $400 billion/year in products, equivalent to twice current forest products), with as much as 45-50% from renewable sources by 2050 (graph 2.6.3). More than one quarter of this product volume is expected to come from wood.

GRAPH 2.6.3

Fossil fuels vs. renewable energy demand, 2005-2050



Sources: US Department of Energy, "Technology Roadmap for Plant/crop based Renewable Resources 2020", Renewable Vision, February 1999 (www.oit.doe.gov/agriculture).

2.7 Trade policy and tariff and non-tariff barriers, including phytosanitary measures

A possible reduction of tariffs as the result of the WTO Doha negotiations is unlikely to significantly influence forest product consumption and production in aggregate (Savcor Indufor 2005). The already low import tariffs and relatively small share of forest products traded internationally explain the expected small aggregate impacts of full liberalization on forest product consumption levels. According to the study, global roundwood production is predicted to increase only by about 0.5% compared to the baseline. Aggregate trade is predicted to increase by about 2% compared to the baseline. Changes in trade vary from about 1% (woodpulp) to an increase of more than 6% (wood-based panels). Trade liberalization in the forest sector would benefit developed, forest-rich, export-oriented countries such as Canada, the US, Finland, Sweden and New Zealand more than developing countries. The products that would benefit most from trade liberalization in these countries are largely paper products. However, the authors also note that tariff escalation is still common for some products both in developed and developing countries, and conclude that considerable room still exists for tariff liberalization, especially in manufactured products.

On non-tariff measures (NTMs) such as standards and technical regulations, Savcor Indufor (2005) observes that NTMs promoting environmental objectives are increasing. They find, however, that WTO-compatible NTMs aimed at meeting environmental and safety objectives do not yet appear to be major constraints to trade. On the contrary, they are offering opportunities to access new markets or maintain existing ones based on environmentally sound practices, as is demonstrated by forest certification. However, poorer developing countries and small producers and communities are often disadvantaged when it comes to benefiting from forest certification. Interviews with forest product producers revealed a general consensus that technical barriers to trade and environmental market requirements are increasing (ITTO, 2004). Producers are also concerned about increasing government/public sector procurement policies, ISPM15 rules (see below) and rules that accept only FSC or otherwise certified forest products.

A new twist developed in the ongoing US-Canada trade dispute over softwood lumber (sawn softwood) last October when a North American Free Trade Agreement (NAFTA) panel found that Canadian lumber imports posed no threat of injury to US producers (NAFTA, 2004). If upheld, the ruling would force the lifting of duties of 27.2% on Canadian lumber imports that exceed annual import caps. The US government subsequently appealed the finding under the extraordinary challenge provisions of NAFTA, and a ruling is expected soon. However, the US has never won an extraordinary challenge under NAFTA. In the meantime, a definitive duty ranging from 0.92% to 10.59% was imposed on softwood lumber imports from Canada late in December 2004 (WTO 2005a). In a related development, the Government of Canada and several Canadian forest industry associations filed a lawsuit in the US Court of International Trade in late April 2005, challenging a law that allows US producers to receive countervailing and anti-dumping duties collected from foreign competitors (Random Lengths, 2005). On 19 May, Canada took its case to the WTO, requesting the formation of a special compliance panel to review US implementation measures following an August 2004 decision directing a change in methods used by the US in calculating import duties. In the mid-May action, Canada also asked for authority to retaliate on 400 million in Canadian dollars (US$325 million) of US imports.

On 10 December, the International Trade Commission issued a determination upholding duties imposed by the US on imports of Chinese-made wooden bedroom furniture, finding that imports had caused injury to the US domestic industry (USITC 2004). Dumping margins set in the process of establishing provision measures range from 0.79% to 198% on a wide range of imported items. The furniture dispute follows an earlier unfair trade petition filed in March 2004 with the US Commerce Department by a coalition of US tissue and crepe paper manufacturers, charging dumping and unfair pricing tactics (Tappi, 2004). Provisional measures were also put in place in the second half of 2004 that set the dumping margin at 266% for crepe paper and up to 125% for certain tissue paper products (USITC, 2005). Final measures and definite duty decisions are still pending.

On 1 January 2005 the EU lifted punitive tariffs against a range of US products, including paper and wood products, after the US rescinded legislation providing a tax break mechanism for US exporters.

In the past year, only one investigation was undertaken within the EU in the context of anti-dumping and anti-subsidy safeguard measures related to wood and paper products in the last years, which resulted in imposing a definitive anti-dumping duty on the US and collecting definitively the provisional duty of 6.5% to 66.7% imposed on imports of okoumé plywood from China in late 2004 (WTO 2005b). A quantity of about 80,000 m^3 is affected.

In Asia the negotiation on the Free Trade Agreement between ASEAN and China has been finalized and the agreement will be implemented with effect from 1 July 2005. Thus tariffs for all imported products (with a few exceptions) that are being traded between the ASEAN countries and China will be lowered gradually. Malaysia, China and other countries have listed a few timber products, such as plywood, particleboard and fibreboard on the 'Sensitive List'. Import tariffs for products listed as 'sensitive' need to be lowered gradually according to a specified schedule (STA 2005).

There has been increasing concern in recent years about the spread of pests, such as the Asian longhorn beetle and the Pine Wood Nematode, since wooden packaging material made of unseasoned (green) wood provides a pathway for the introduction and spread of such pests. A few years ago there was a major incident when the Asian longhorn beetle was discovered in the US. In order to protect their trees and forests, a number of countries and trading blocs have taken regulatory action to control the import of wood packaging over the last decades. In response, the UN Food and Agricultural Organization (FAO) Interim Commission on Phytosanitary Measures adopted the International Standard for Phytosanitary Measures (ISPM) 15 "Guidelines for Regulating Wood Packaging Material in International Trade" in March 2002 (ISPM, 2002). This means that countries can now decide to implement these internationally recognized import regulations to prevent the spread of wood pests. An international mark has been agreed to and trademarked and is now authorized for use. To attest to compliance to the standard, a pallet must be clearly marked on two faces showing the official International Plant Protection Convention logo, a two-letter country code, a unique number assigned by the National Plant Protection Organization, "HT" for Heat Treatment or "MB" for Methyl Bromide, and "DB" to signify debarked. Packaging materials made entirely from processed manufactured wood (plywood, OSB, LVL, etc.) are exempt from this new standard. Engineered wood pallets, either moulded from particles or of plywood, do not require heat-treating, fumigation or the specific labelling required of solid sawnwood pallets. It is unclear when the use of the International Plant Protection Convention logo will be mandatory and when some countries will stipulate its use. The EU is implementing ISPM15 from 1 March 2005, while the North American Plant Protection Organization, which covers Canada, the US and Mexico, implemented ISPM15 in January 2004. An increasingly large number of countries outside the UNECE region have also adopted the ISPM standard for wood. While the ISPM 15 is increasingly adopted as a standard worldwide, there is still considerable uncertainty on inspection methods. It seems that currently, no proper structure exists to monitor adherence to the standard in a cost-effective manner. Costly verification procedures would certainly have a large impact on the use of unprocessed wood for pallets.

2.8 The emergence of China as a major player in the wood products manufacturing arena

After centuries of economic and technological stagnation, China now has the world's most rapidly growing economy. This achievement follows adoption of internal reforms and trade liberalization policies. It is increasingly apparent that industrial and economic growth is not haphazard, but rather the result of careful, targeted planning that is focused on development of labour-intensive industries.

Within this environment, China's wood and wood products sector, long a significant contributor to rural economies in that country, has emerged as one of the largest in the world in terms of production, consumption and imports (Xu and White, 2004). With only modest forest resources of its own, and thus far only limited plantation development, China has markedly increased its imports of hardwood and softwood logs and lumber since the mid-1990s. The gap between consumption and domestically produced forest products in 2002 was estimated at 106 million m^3 roundwood equivalent, and this is expected to rise to 150-175 million m^3 by 2010 (Bull and Nilsson, 2004; Nilsson et al., 2004; Sun et al., 2004). Chinese exports of secondary wood products have risen similarly. China is also becoming an influential consumer.

Consideration of China's household furniture industry provides an indication of the way in which the wood-based industries of that country are growing. In 2003 the Chinese furniture industry was reported to be composed of around 50,000 companies, mostly small to medium-sized, with five million employees in total (Cao et al., 2004). It is interesting to note that it is mostly companies in Taiwan P.O.C., with factories in China, that are leading the growth of China's furniture industry. In fact, in 2003 it was estimated that companies located in Taiwan P.O.C. were contributing 75% of the furniture export shipments from China. Overall, fewer than 10% of Chinese furniture companies are state owned, with the vast majority owned by foreign interests, Chinese private owners, stockholding companies, and various joint ventures.

In 2003, China ranked as the third largest furniture-producing country in the world, accounting for 9% of total value of shipments, and ranking second to Italy in export shipment value. Over the past decade, the Chinese furniture industry has grown at an average annual rate of about 17%. Factors identified as contributing to rapid Chinese furniture industry growth include lower Chinese labour costs (5% to 10% of US wages), lower operational costs, lower overhead costs (estimated at about one third of those in the US), lower health care costs, and fewer and less stringent environmental restrictions (Cao et al., 2004).

As China assumes an increasing role as an exporter of products of all kinds, per capita income within China is rising. As a result, internal demand for a wide range of products, including demand for a number of types of wood and wood products, is growing rapidly. Although Chinese dwellings are seldom constructed principally of wood, it is common to use wood for mouldings, doors, partitions and furniture. Moreover, interest in wood framing as a method of construction is slowly gaining acceptance and momentum, stimulated by promotional activities of North American trade associations. Xu and White (2004) recently summarized this situation, noting that, "Fully one half of all timber imports (logs, sawnwood and panels) are now processed and exported as finished products and the marked increase in manufacturing and domestic consumption in a nation with limited per capita forest resources has fuelled the rise in imports. Furthermore, the combination of this booming domestic demand and the growing export-oriented processing industry is affecting the industry globally, causing some enterprises to collapse, while creating opportunities for others. An outcome of all this activity is that industry and government leaders around the world are reassessing their competitive positions in light of the new Chinese market."

In parallel with China's growing presence in global wood products markets, concern about that country's use of illegally-sourced wood has been growing as well. Numerous reports suggest substantial trade in illegal wood between Indonesia, Russia, Malaysia and China, and other nations. In a report issued by WWF in 2004 (Chunquan, Taylor and Guoquang, 2004) it is asserted that China is one of the major destinations for illegally harvested or traded wood. Given such concerns, it was a surprise for a number of observers when, in mid-April 2005, China joined the list of countries with certified forest holdings. Two forestry operations in China, totalling 420,000 hectares, were issued FSC certificates following an evaluation by the independent Swiss-based certifier SGS. This was the first certification of any forest land in China. Both of the forestry operations supply forest products for export (Kyodo News Agency, 2005).

Xu and White point out that growing global interest in the Chinese market on the part of industry, governments and development organizations has not yet been met with rigorous and publicly accessible analyses of the macro-level trends and issues. They also note that the primary source of market information to date has been proprietary analyses, the cost of which has precluded its use to all but the largest international investors and trade associations, and that even these reports have been of mixed quality due to the weakness of the official data and the lack of independent peer review.

The conclusion from a policy perspective is that better information, which is accessible to governments, international development agencies and institutions, researchers and NGOs, is needed to enable understanding and assessment of past and future impacts of China's forest sector growth on global wood markets and economies.

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Chapter 3

Continued global economic recovery boosts housing construction: Economic developments influencing forest products markets in 2004 and 2005[23]

Highlights

- World output increased by 5% in 2004, which was the fastest annual rate of increase in 30 years; however, in western Europe, the cyclical recovery lost momentum in the second half of 2004.
- Western Europe will experience another year of moderate growth in 2005, in contrast to central and eastern Europe, where growth will be significantly stronger than in western Europe.
- Continued low interest rates, income growth and improving labour markets, supported by strong demographics, drove United States housing markets to record levels in 2004, with starts reaching almost 2 million, with the outlook to remain at this level in 2005.
- The further depreciation of the dollar during 2004 was partly reversed in the second quarter of 2005, however, the considerable US current account deficit, which is projected to continue widening in 2005, remains a major downside risk to the global economy.
- Oil prices reached record levels in the first half of 2005 and high oil prices are expected to be a feature of the world economy for many years to come.
- In 2004, the CIS emerged as one of the fastest growing regions in the world economy, with all 12 members posting solid, albeit varying, rates of GDP growth.
- The short-term outlook is for a moderate slowdown in global economic growth in 2005, with the US and China remaining the major engines of global economic activity.
- Construction scenarios in Europe are similar to those for North America: strong housing (both new housing and remodelling and maintenance) and weak non-residential markets.
- Construction forecasts for western Europe expect stronger non-residential and civil engineering sectors and slower new residential construction, but residential remodelling and maintenance remains healthy.
- Concern exists in North America and Europe about some over-heated housing bubbles.

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[23] By Mr. Dieter Hesse, Dr. Al Schuler and Mr. Craig Adair

Secretariat introduction

The secretariat of the UNECE/FAO Timber Branch once again thanks Mr. Dieter Hesse[24], UNECE Economic Analysis Division, for reviewing the analysis in the first section of this chapter, which is based largely on that Division's *Economic Survey of Europe*.[25] The full text of the Survey is available on the UNECE website.[26] We also wish to express our appreciation, once again, to Dr. Al Schuler,[27] US Department of Agriculture, Forest Service and Mr. Craig Adair,[28] APA–The Engineered Wood Products Association, for the second section of this chapter, focusing on construction developments.

3.1 Economic developments

3.1.1 *Economic developments in 2004*

3.1.1.1 *Global context*

The global economic recovery continued at a robust rate in 2004. World output increased by 5.1%, up from 4% in 2003.[29] This was the fastest average annual rate of increase in 30 years. The strong growth in output was accompanied by a marked acceleration in world trade of goods and services, which increased in volume by nearly 10% in 2004, double the growth rate in 2003.

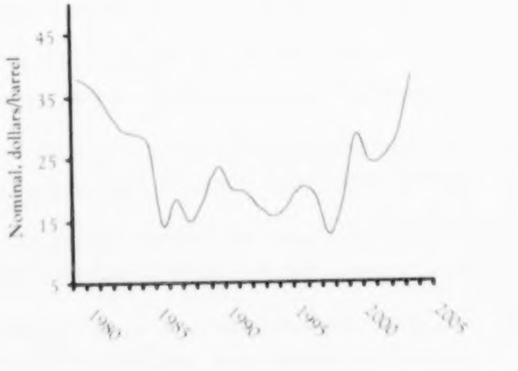
All major regions shared in the global recovery in 2004, although growth rates varied. The continued dynamism of the Asian economies stood out, reflecting especially the continued strong growth in China and India and the accelerating growth in southeast Asia. In contrast, the recovery faltered in Japan. There has been remarkably rapid growth in the CIS, largely because of the boom in commodity prices. Economic activity also picked up strongly in Latin America. In most of central and eastern Europe, economic activity continued with high momentum. The euro area, as in 2003, remained the laggard of the global recovery.

The sharp rise in oil prices had only a relatively moderate negative impact on global economic activity in 2004 (graph 3.1.1). The resilience of major net oil importing countries to higher oil prices has been strengthened due to the substantial decline in intensity of oil production since the first oil price shocks of the 1970s and 1980s. There was also a relatively rapid recycling of the higher oil revenues in the oil-producing countries, which stimulated their imports of goods and services from the rest of the world. Concurrently more flexible product and labour markets in the advanced economies helped to cushion the effects of the oil price shocks. In Europe, the appreciation of the euro and other currencies against the dollar mitigated the potential adverse impact of higher oil prices.

A significant and permanent increase in oil prices will inevitably have negative effects on levels of output in the oil importing countries in the short and medium terms. In the long run, higher oil prices should stimulate investment to improve energy efficiency and accelerate the process of substituting oil with other forms of energy (including renewable energy sources such as wood and biomass, wind, solar and hydroelectric power), thereby reducing the vulnerability of the global economy to new oil price shocks. An appropriate orientation of energy policies can foster this process of substitution, also taking into account the need to ensure security of energy supplies and to curb carbon emissions from the burning of fossil fuels.

GRAPH 3.1.1

Nominal petroleum prices, 1980-2005



Note: Brent crude spot price, quarterly averages for nominal prices.

Source: United States Department of Energy, Weekly Status petroleum Report (Washington, D.C.), various issues (www.eia.doe.gov; IMF, International Financial Statistics (CD-ROM; United Nations, Common Database, 2005.

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[26] www.unece.org/ead/ead_h.htm.

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[29] Calculated by using national GDP weights based on purchasing power parity rates.

The main development on the foreign exchange markets in 2004 was the further sharp depreciation of the dollar in the final months of the year. This selling pressure on the dollar, which started in early 2002, has been mainly due to the increasingly perceived need for a fundamental realignment of the exchange rate patterns among major currencies in order to correct the large US current account deficit and the associated rise in external financial liabilities (graph 3.1.2). Concerns about the large and persistent government budget deficit have likely also played a role. The exchange rate between the dollar and the euro rose to a monthly record high of $1.34 in December 2004, corresponding to an appreciation of the euro by more than 50% compared with the exchange rate of $0.87 per euro in February 2002 (graph 3.1.3). The dollar also weakened markedly against the yen and against other major currencies including the UK pound Sterling and the Swiss franc in late 2004. In contrast, the Chinese monetary authorities maintained the parity of their currency pegged to the dollar unchanged for the ninth consecutive year.

3.1.1.2 North America

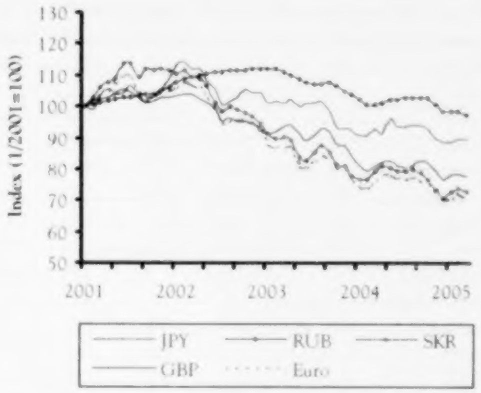
In the US, economic activity grew at a brisk pace in 2004, driven mainly by strong growth of domestic demand. Exports too picked up in a favourable external environment and were aided by the weaker dollar. The ongoing surge in imports meant that the change in real net exports continued to be a drag on domestic output. In the event, real GDP rose by 4.4% in 2004, up from 3% in 2003 (table 3.1.1 and graph 3.1.4).

The continued strong rise in domestic demand led to a further rise in the current account deficit to some $665 billion, corresponding to 5.7% of GDP. The general government budget deficit, relative to GDP, fell slightly, to 4.3%, reflecting favourable growth in revenues on account of the dynamic economic growth. Fiscal policy was only slightly expansionary in 2004, as judged from changes in the cyclically adjusted budget deficit. The stance of monetary policy has gradually tightened since June 2004, with the federal funds rate being raised in several steps to 2.25% in December 2004. This moderate tightening only partly reversed the still expansionary monetary policy. Against a backdrop of moderate inflationary expectations, long-term interest rates have remained at quite low levels.

In Canada, economic activity remained on a robust upward path despite the restraining effects on exports stemming from the marked appreciation of the Canadian dollar. Real GDP rose by 2.8% in 2004 over the preceding year. Private consumption was strong, supported by further substantial gains in employment and a fall in the household savings ratio. Business fixed investment picked up, stimulated by high corporate profits. Residential investment continued to expand at a solid rate.

GRAPH 3.1.2

Exchange rates of selected currencies vs. United States dollar, 2001-2005

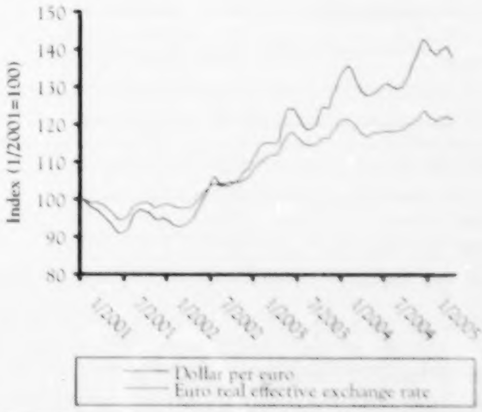


Note: JPY is Japanese yen, RUB is Russian ruble, SKR is Swedish krona and GBP is British pound Sterling.

Source: IMF International Financial Statistics, 2005.

GRAPH 3.1.3

Exchange rate of the euro, January 2001-April 2005



Note: Dollar per euro and real effective exchange rates are average monthly rates.

Source: European Central Bank, 2005.

TABLE 3.1.1

Annual changes in real GDP in Europe, North America and Japan, 2003-2005

(Percentage change over the previous year)

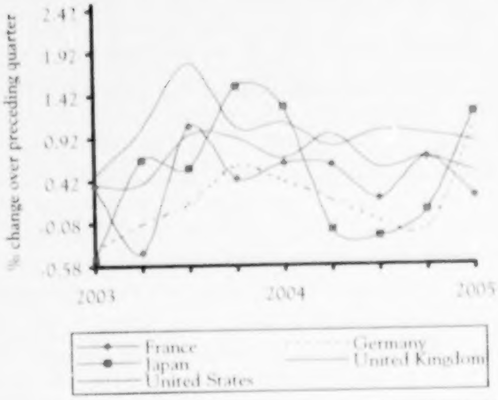
	2003	2004	2005 *f*
France	0.5	2.4	1.9
Germany	-0.1	1.6	0.8
Italy	0.3	1.0	0.9
Austria	0.8	2.0	2.7
Belgium	1.3	2.7	2.7
Finland	1.9	3.4	2.7
Greece	4.5	4.2	2.9
Ireland	3.7	4.9	4.9
Luxembourg	2.9	4.0	3.5
Netherlands	-0.9	1.4	1.3
Portugal	-1.2	1.2	1.9
Spain	2.5	2.7	2.2
Euro area	0.6	1.8	1.5
United Kingdom	2.2	3.7	2.5
Denmark	0.5	2.4	2.3
Sweden	1.5	3.0	2.9
EU-15	0.9	2.3	1.8
Cyprus	1.9	3.7	3.8
Czech Republic	3.7	4.0	4.0
Estonia	5.1	5.7	5.5
Hungary	3.0	3.4	3.6
Latvia	7.5	6.7	6.0
Lithuania	9.7	5.8	5.7
Malta	-0.3	1.0	1.5
Poland	3.8	4.3	4.6
Slovakia	4.5	5.0	5.4
Slovenia	2.5	3.8	3.9
New EU members-10	4.0	4.9	4.5
EU-25	1.1	2.3	1.8
Iceland	4.0	4.3	4.7
Israel	1.3	4.3	4.0
Norway	0.4	3.4	3.5
Switzerland	-0.4	1.7	1.3
WECEE	1.1	2.4	2.2
Canada	2.0	2.8	2.6
United States	3.0	4.4	3.4
North America	3.0	4.3	3.4

Note: All aggregates exclude Israel. WECEE (western Europe, central and eastern Europe) comprises the EU-25 plus Iceland, Norway and Switzerland. EU-8 (central Europe and the Baltic states) includes the new EU members less Cyprus and Malta. Western Europe-20 comprises the EU-15 plus Cyprus, Iceland, Malta, Norway and Switzerland. For data on south-east European and European CIS countries, see table 1.1.2. *f* = Forecasts.

Sources: Eurostat; OECD national accounts and national statistics; UNECE secretariat estimates; Consensus Economics, *Consensus Forecasts*, 2005.

GRAPH 3.1.4

Quarterly changes in real GDP, 2003-2005



Note: Data are seasonally adjusted.

Source: National statistics, Eurostat and New Cronos Database, 2005.

3.1.1.3 Western Europe

In the euro area, the cyclical recovery lost significant momentum in the second half of 2004. Real GDP fell in Germany, Greece, Italy and Portugal in the final quarter of 2004 compared with the preceding quarter. Export growth in the euro area weakened against the background of a moderate slowdown in the global economy and deteriorating price competitiveness due to the appreciation of the euro. Domestic demand remained sluggish and consequently could not offset the weakening of external demand impulses. Construction investment rose by 1.25% compared with 2003, when there was a decline by 0.1%. In the event, aggregate real GDP in the euro area rose by 1.8% in 2004 compared with the preceding year.

Economic activity in the euro area in 2004 continued to be supported by an expansionary orientation of monetary policy. The European Central Bank (ECB) left its key refinancing rate unchanged at 2%. Real short-term interest rates were close to zero. Nominal long-term interest rates also remained at very low levels. Financing conditions for firms and households remained very favourable in 2004.

Outside the euro area, in the UK, real GDP rose by 3.1% in 2004. Private consumption remained the mainstay of economic growth, supported by the wealth effects originating in the housing market boom and favourable employment growth. Higher interest rates and a deceleration of housing price inflation dampened household consumption expenditures in the course of 2004. Strong government spending has been an important factor behind the favourable performance of the UK economy in recent years.

For western Europe as a whole, real GDP increased by 2.2% in 2004, a reflection of the more dynamic growth in countries outside the euro area.

3.1.1.4 *Central and eastern Europe*

In central and eastern Europe, economic growth exceeded the average rate in western Europe by a significant margin. Real GDP in the region as a whole rose by 5.5% in 2004, up from 4.1% in 2003. Economic growth was broadly based, driven by robust increases in private consumption, fixed investment and exports. Available data on investment by type of asset for some of the countries in the region point to strong growth of expenditures on construction as well as on machinery and equipment. But also public investment expenditures supported economic growth, and macroeconomic policies were in general supportive to economic growth. The robust output growth has not so far led to significant gains in employment, a reflection of strong productivity gains. Creating more jobs is one of the most pressing economic policy challenges for the region.

The economic dynamism in central and eastern Europe has spread to all subregions. In the eight countries that joined the EU at the beginning of May 2004, aggregate real GDP rose by 5% in 2004, up from 4% in the preceding year. In fact, Latvia was the fastest growing EU economy in 2004. Business and consumer confidence was strong, which also underpinned business investment. Expanding capacities of foreign direct investment (FDI) firms as well as the one-off effects of full trade liberalization at the time of EU accession in May 2004, in combination with strong cost competitiveness, stimulated exports, especially to west European markets.

In southeast Europe (including Turkey), economic activity strengthened due to robust performance in most of the EU candidate countries. Real GDP rose on average by 7.3% in 2004, up from 5.2% in the preceding year (table 3.1.2). Excluding Turkey, the aggregate rate of growth was 6.9% in 2004, up from 4.3% in 2003. As in the other parts of eastern Europe, economic activity was underpinned by strong domestic demand and exports. The emergence of a more stable and predictable macroeconomic environment has undoubtedly contributed to the strengthening of economic activity in southeast European countries.

TABLE 3.1.2

Annual changes in real GDP in southeast Europe and the CIS, 2003-2005

(Percentage change over the previous year)

	2003	2004[f]	2005[f]
Southeast Europe	5.1	7.9	5.2
Albania	6.0	6.0	6.0
Bosnia and Herzegovina	3.2	4.0	4.3
Bulgaria	4.3	5.5	5.3
Croatia	4.3	4.0	4.4
Romania	4.9	7.5	5.2
Serbia and Montenegro[b]	1.5	7.0	4.5
The former Yugoslav Republic of Macedonia	3.4	2.5	3.5
Turkey	5.8	9.0	5.3
CIS	7.7	7.9	6.4
Armenia	13.9	10.0	8.0
Azerbaijan	11.2	9.5	14.0
Belarus	6.8	10.0	9.0
Georgia	11.1	6.0	5.0
Kazakhstan	9.3	9.3	7.9
Kyrgyzstan	6.7	6.5	7.0
Republic of Moldova[c]	6.3	8.0	6.0
Russian Federation	7.3	6.8	5.8
Tajikistan	10.2	11.0	8.3
Turkmenistan[d]	6.8	6.0	7.0
Ukraine	9.4	12.4	6.5
Uzbekistan	4.4	7.6	6.4
Total above	6.9	7.9	6.0
Memorandum items:			
Southeast Europe without Turkey	4.2	6.4	5.0
CIS without Russian Federation	8.5	10.1	7.5
Caucasian CIS countries	11.7	8.6	10.0
Central Asian CIS countries	7.5	8.4	7.3
Three European CIS countries	8.6	11.6	7.2
Low-income CIS economics	7.7	8.1	7.9

Note: The aggregation was performed using weights based on purchasing power parities. Aggregates shown are: southeast Europe (the 8 countries indicated above); CIS (the 12 member countries of the Commonwealth of Independent States). Sub-aggregates are: Caucasian CIS countries: Armenia, Azerbaijan, Georgia, central Asian CIS countries: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan; three European CIS countries: Belarus, Republic of Moldova, Ukraine; low-income CIS economies: Armenia, Azerbaijan, Georgia, Republic of Moldova, Kyrgyzstan, Tajikistan and Uzbekistan. Unless otherwise noted, country forecasts shown are those reported by official forecasting agencies.

f Forecasts.

b Excluding Kosovo and Metohia.

c Excluding Transdniestria.

d UNECE secretariat estimates.

Sources: National statistics, CIS Statistical Committee; reports by official forecasting agencies, 2004.

Recent increase of FDI in Bulgaria, Romania and, to a lesser extent, Croatia, largely reflect a change in investor expectations about the prospect of these economies becoming part of the EU in the not-too-distant future (Bulgaria and Romania signed accession agreements in 2005). Economic restructuring, largely driven by FDI inflows, has led to an upgrading and expansion of manufacturing production capacities, which has set the stage for a large rise in merchandise exports, especially to western Europe.

3.1.1.5 CIS

As in 2003, the CIS remained in 2004 one of the fastest growing regions in the world economy, with all countries posting solid growth. Real GDP rose by 8.2% in 2004, up from 7.7% in the preceding year. In the Russian Federation, the average annual rate of economic growth was 7.1% in 2004, slightly lower than the rate of 7.3% in 2003. The main factor behind this rapid economic expansion was the strong rise in demand in international commodity markets (particularly oil, gas and metals), which also led to a surge in commodity prices. At the same time, several years of strong output growth have been associated with a surge in domestic demand, especially in private consumption. In many countries, fixed investment has also recovered, most of it in the extractive industries. The rise in economic activity has also boosted government revenues, leading at the same time to more balanced fiscal positions. Economic growth was also underpinned by earlier market reforms in many of the CIS countries.

Compared with eastern Europe, market reforms in the CIS have been complicated by the legacy of a greatly distorted economic structure, the lack of unequivocal political and popular support for reform, and the absence of an external anchor for the reform process, such as a realistic expectation of EU membership. Nor are the CIS countries close to the large western European markets. Despite these disadvantages, reforms in the CIS have nevertheless advanced, although at a slower pace and with significant differences across countries.

3.1.2 The short-term outlook

3.1.2.1 Global context

Forecasts are for a continued solid, albeit slightly moderating, growth of the global economy in 2005. Real GDP is expected to increase by about 4.25% compared with 5% the previous year. The expansion of world trade will also weaken somewhat, to an annual growth rate of about 7.5%. The global business cycle will continue to rely on the US as the major engine of growth. Rapid growth rates are expected to continue in China and other Asian emerging markets, Latin America, eastern Europe and the CIS. Western Europe will continue to have an overall rate of economic growth rate that is significantly below the world average.

Although the short-term forecasts for the world economy are relatively favourable, the risks to the global economic outlook are predominantly on the downside. A major uncertainty is the likely development of the international oil markets, where prices have remained at levels much higher than expected during the first five months of 2005. The combination of strong demand and relatively tight supply capacities points to the vulnerability of oil markets to adverse shocks with associate upside risks to prices. The fact that the global economy continues to rely so much on the US as a major engine of growth evidently makes the outlook very vulnerable to a more pronounced slowdown of the US economy. This is even more the case because the necessary correction of the large domestic and external imbalances that have developed in the US will likely require a more or less sharp slowdown of domestic demand and output growth.

An unexpectedly strong rise in US long-term interest rates, triggered, for example, by upside risks to inflation or by new selling pressure on the dollar in reaction to a further strong deterioration of the current account deficit, would risk dampening economic growth in the US and the rest of the world economy. A sudden surge in long-term interest rates would also risk triggering a sharp reversal of the surge in housing prices witnessed in the US and many other countries in recent years.

Other risks to the outlook include a possible hard landing in China, which has become an important source of demand for goods and services produced in the rest of Asia and other regions of the world economy. Long-term interest rates in the US have remained at unusually low levels in the recovery so far, despite the tightening of monetary policy.

3.1.2.2 North America

In the US, economic growth remained strong in the first quarter of 2005, driven by robust expansion of all major components of domestic demand. Personal consumption expenditures continued to be the mainstay of economic growth, stimulated by favourable financing conditions and the wealth effects resulting from the buoyancy of demand in the housing market and associated sharp increases in prices of existing homes. Business investment continued to be spurred by rising capacity utilization, high profits, low interest rates and the upward tendency in equity markets. Export growth picked up strongly in the first quarter of 2005, but changes in real net exports continued to be a drag on overall economic growth.

Against the backdrop of a dwindling output gap and associated upside risks to inflation, the Federal Reserve raised the federal funds rate in three steps to 3% in early May 2005. Further increases of interest rates designed to move monetary policy towards a more neutral stance are expected during 2005. For the year as a whole, real GDP is forecast to increase by some 3.5%, about one percentage point less than in 2004. The expansion will continue to be driven by robust domestic demand, with real net exports subtracting from overall economic growth. The current account deficit is projected to rise to some $800 billion in 2005, equivalent to about 6.5% of GDP.

In Canada, real GDP is forecast to increase by 2.6% in 2005, driven by strong domestic demand and broadly the same outcome as in 2004.

3.1.2.3 *Western Europe*

In the euro area, economic activity picked up slightly in the first quarter of 2005, but the underlying cyclical momentum has remained weak in the face of persistent sluggishness of domestic demand and the restraining effects of the strong euro on export activity. In Italy, the economy has moved into recession against the background of a steady deterioration of international competitiveness during past years. In the euro area high unemployment and uncertainty about prospects for jobs and implications of pension reforms for future incomes have kept consumer confidence at low levels. Low long-term interest rates have, however, stimulated the demand for housing in many countries, a tendency that has been partly reinforced by quite substantial increases in housing prices and associated expectations of further capital gains. Industrial confidence weakened in the first months of 2005 in view of deteriorating export prospects and the expected moderate growth of domestic demand.

Against this background, real GDP is forecast to increase by only 1.5% (at best) in 2005. This reflects in the main the weak economic performance in the three major economies, those of France, Germany and Italy. With inflation forecast to fall below the target rate of 2%, the ECB is expected to hold its key financing rate unchanged at 2% until there are indications of a sustained strengthening of domestic demand. In fact, a persistent sluggishness of economic activity could well necessitate a further reduction of interest rates.

Outside the euro area, in the UK, the average annual rate of economic growth is forecast to slow down to 2.5% in 2005. But the economy is operating at a full capacity rate, and the weakening growth will therefore help to contain inflationary pressures. The boom in housing prices levelled off in mid-2004 and this will tend to dampen private consumption in 2005.

In western Europe as a whole, real GDP is projected to increase by 1.8% in 2005. Given its present strong reliance on export growth, the recovery in western Europe is very vulnerable to a more pronounced weakening of global growth than is currently forecast. Other downside risks include adverse spillover effects on fixed investments originating from any unexpectedly strong rise in long-term interest rates in the US and a further strong appreciation of the euro. A sudden and pronounced reversal of the rise in housing prices witnessed in some countries (France, Ireland, Spain, UK) would also risk, *via* the associated negative wealth effects, dampening household consumption and overall economic growth.

3.1.2.4 *Central and eastern Europe*

Against the background of slowing global growth and sluggish economic activity in the euro area, GDP growth in central and eastern Europe is forecast to slow down in 2005. But the average rate of economic expansion will remain considerably above the average of western Europe. Economic activity will be supported by continued robust growth of domestic demand and exports. In the event, real GDP in the eight new Member States of the EU is forecast to increase on average by 4.5% in 2005. In southeastern Europe, average annual economic growth of about 5% is expected.

The main risks to the outlook for central and eastern Europe include a possible sharp deceleration in economic growth in the euro area and significantly higher than expected energy prices. A number of countries in the region still face important macroeconomic policy challenges such as large fiscal and current account deficits.

3.1.2.5 *CIS*

Economic activity in the CIS as a whole is expected to lose some momentum in 2005 but will nevertheless remain quite strong. Aggregate real GDP is forecast to expand by some 6.5% compared with the preceding year. Overall economic activity will continue to be supported by the favourable demand conditions for oil and other commodities and associated price developments. Domestic demand in the CIS should generally remain buoyant, but its effect on domestic economic activity will depend on the extent to which local producers can improve their responsiveness to changes in demand. Macroeconomic policy will continue to be generally supportive, with an increasing risk of pro-cyclical fiscal loosening in a number of countries, including Russia.

In Russia, the official growth forecast for 2005 has been lowered to some 6%. Both the output and exports of oil are likely to slow down after several years of very strong growth, also reflecting inadequate oil sector investment. There has also been a deterioration of the business climate in the context of the Yukos affair, which could, moreover, adversely affect private sector fixed investment. Private consumption will continue to be fuelled by easier access to credit and strong wage growth, which, in turn, will boost import demand. The influence of the planned fiscal expansion in supporting economic activity will probably be limited in view of the weak responsiveness of supply to rising domestic demand (partly a consequence of declining competitiveness), which will make it difficult to reduce inflationary pressures.

The main structural weakness of the CIS economies remains their high dependence on exports of natural resources, implying a high degree of vulnerability to external shocks. The short-term outlook is therefore highly dependent on the price developments in international commodity markets. The long-term growth prospects of the CIS economies therefore hinge on their success in diversifying their economies and in the implementation of structural reforms.

3.2 Construction sector developments

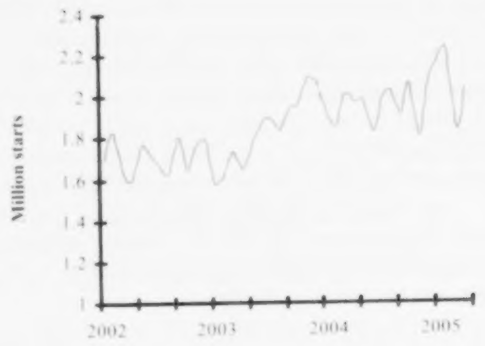
3.2.1 North America

3.2.1.1 United States

The US housing market achieved 1.952 million total housing starts including 1.605 million single-family homes in 2004 (graph 3.2.1). This was another record for single family housing activity. In contrast, multi-family construction remained stable at the 348,000 level recorded in 2003. The key drivers of housing activity were attractive interest rates (5.8% for fixed, 30-year rates and 3.9% for adjustable rate mortgages), innovative financing (e.g. low downpayments and reverse mortgages), good personal income growth, and favourable demographic developments. Strong housing markets, providing demand for 75% of structural wood products, drove wood product prices higher in 2004. Structural panel prices increased by 26%, while lumber prices increased by 30% (Random Length's composite prices). In fact, housing activity was so strong that there were actual shortages of building materials during the peak "spring building season". This drove oriented strand board (OSB) prices to an all-time high of $508 per thousand square feet in April 2004. Another factor adding to panel price volatility was Iraq-war-related demand for plywood. There were also sporadic shortages of cement and steel, a consequence of the strong global demand, particularly from China.

GRAPH 3.2.1

United States housing starts, 2002-2005



Note: Seasonally adjusted annual rate.

Source: US Bureau of the Census, 2005.

Unfortunately, other construction sectors did not fare as well as new housing (table 3.2.1). Construction expenditures for the non-residential sector increased by only 3.5%, compared with an 18.4% increase for the new residential sector.[10] However, the non-residential sector has started to respond to steady improvements in the business investment climate, particularly private construction expenditures for office, commercial and health care. There was also an increase in public construction expenditures for education and road infrastructure.

TABLE 3.2.1

Value of completed United States construction, 2003-2004

(Billion $)

	2003	*2004*	*% change*
Total construction	916	1000	9.2
Private construction	690	767	11.1
Residential (new)	345	409	18.4
Residential improvements	130	135	3.6
Private non-residential	214	222	3.7
Public construction	226	233	3.1
Total non-residential (new)	433	448	3.5

Source: US Bureau of the Census, Report C30, 2005.

Although the size of the non-residential and residential sectors are similar ($400 to $450 billion annual expenditures), it is in the residential markets where the growth has been for the past five years, and most analysts expect this to continue through 2006. The US housing sector has been benefiting from the fact that foreign buying of US treasury bills (mainly by the central banks of China and other Asian economies) has kept long-term interest rates at low levels, despite the 200-basis point increase in the Federal Reserve funds rate from 1% to 3% between June 2004 and May 2005. This has kept demand for new homes at high levels.

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[10] Census collects annual value of construction data for new residential and improvements while expenditures for the non residential sector are for new construction only. They collect expenditure data for improvements only periodically.

A major difference between US and European residential markets is in the breakdown between new construction on the one hand and repair and remodelling on the other hand. There are approximately 171 million occupied housing units in western Europe compared with about 106 million in the US. The average (median) age of the housing stock in the US is 32 years while the average age in western Europe is considerably higher. Consequently, the remodelling market in Europe accounts for about half of the construction spending, while in the US remodelling repairs and maintenance (by owners and renters) represent about 40% of residential market expenditures, according to recent studies by the Joint Center for Housing studies at Harvard University.

In the US, there is some concern over the risk of housing bubbles in rapidly expanding cities. Prices in some metropolitan regions (for example in Washington DC, New York City, Boston, Las Vegas and San Diego) have surpassed personal income growth by a significant margin. These cities are potential candidates for some price erosion, possibly on a substantial scale, if housing demand falls. On a nationwide basis, there is, however, no evidence of a speculative bubble. However, recent studies by the National Association of Realtors indicate that the percentage of resale homes purchased for investment purposes (a major source of a potential bubble) has increased dramatically over the past several years. The resale market in 2004 totalled 7.8 million units, with 36% classed as "second homes", which include those purchased for investment and the remainder as vacation homes. In 2004, there was a record 2.8 million second home sales, up 16% from 2003, with the investment component increasing by 14.4% to 1.8 million while the vacation home sales rose 20% to 1 million. However, there is no clear indication that average national home prices are increasing faster than personal income growth, which would be another danger sign.

Through the first quarter of 2005, new housing starts rose by 5.4% compared with the first quarter of 2004. The US housing market is expected to remain strong in 2005, near the 2 million level. However, analysts forecast starts to fall in 2006 by approximately 5%, due to rising mortgage rate, with most reductions in the single-family sector. Fundamentals are expected to remain solid: the 30-year mortgage rate is projected to remain below 7% during 2005-2006; demographics remain favourable for second home investments by ageing "baby boomers"; there should also be increased demand from first-time buyers; and the ageing housing stock will favour remodelling expenditures for the rest of this decade.

3.2.1.2 *Canada*

In Canada, housing starts reached a 17-year high in 2004, increasing by 7% over 2003 to 233,000 units. As in the US, key drivers were attractive financing conditions, a healthy economy with improving labour markets, and favourable demographics. Although housing starts in the first quarter of 2005 are up 1.7% compared with the same period of 2004, analysts expect a modest pullback to 210,000 units for the year as a whole (Adrienne Warren, Bank of Nova Scotia, March 2005). Housing starts are expected to pull back further to 185,000 units in 2006 as interest rates are headed upward in response to the projected strengthening economic growth, which risks increasing inflationary pressures. The Bank of Canada is, however, expected to proceed cautiously due to the strong Canadian dollar, which is causing problems for some of Canada's export sectors.

3.2.1.3 *Europe*

Following modest growth in 2003, construction activity in Europe picked up in 2004, rising by 2.1% compared with the preceding year. This was only slightly less than the overall rate of economic growth of 2.2% in the 19 Euroconstruct countries[11] in 2004 (graph 3.2.2). Principal drivers included low interest rates, favourable demographics for first-time buyers, a growing trend to buy second homes, and favourable tax treatment and mortgage measures in some countries (e.g. UK). Less restrictive mortgage conditions (e.g. smaller down payments, longer term loans and reduced transaction costs), could encourage housing investment in Europe and allow owners to benefit at the same time from more liquid real estate assets (*The Economist*, "Lifting the Roof", 11 December 2004). As in previous years, the increase in construction activity was much stronger in eastern Europe compared with western Europe (table 3.2.2). This also reflects a (low) statistical base effect.

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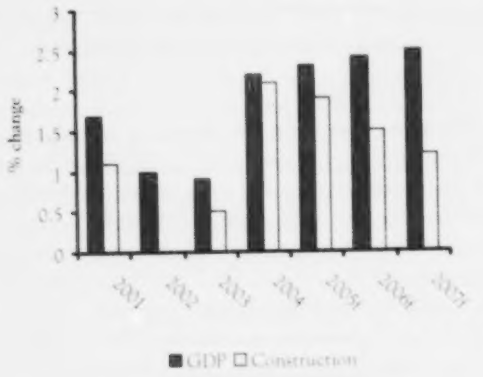
[11] Euroconstruct's 19 countries include 13 EU member states (Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, and the UK.), plus Norway and Switzerland, and 4 CEECs (Czech Republic, Hungary, Slovakia, and Poland). Euroconstruct's western European countries are not the EU15, but the first 15 countries listed above. Eurocontructs' analysis of central and eastern European construction is based on the above 4 CEECs.

GRAPH 3.2.2

European GDP vs. construction sector output, 2001-2007



Note: f = forecast by Euroconstruct.

Source: Euroconstuct, 2005.

TABLE 3.2.2

European construction sector developments, 2003-2006

(% change by volume)

Western Europe	*2003*	*2004*	*2005^f*	*2006^f*
New residential	1.7	4.4	0.7	-2
Residential R&M	1	2.1	1.5	1.9
New non-residential	-4.4	-0.2	2.6	3
Non residential R&M	-0.3	0	0.8	1.3
Civil engineering	2	1.7	2.7	2.3
Total construction	0.3	1.9	1.7	1.2
Eastern Europe	*2003*	*2004*	*2005^f*	*2006^f*
New residential	4.8	2.9	4.3	10.4
Residential R&M	3.6	5.9	5.9	3.7
New non-residential	-3.2	6.1	9.9	8.3
Non residential R&M	-2.6	4.5	4.6	5.3
Civil engineering	4.4	5.5	12.4	14.2
Total construction	2.1	5.2	8.1	9.1

Notes: R&M is remodelling and maintenance. f = forecast.

Source: Euroconstruct, Paris, December 2004.

The growth of construction output was uneven among European countries in 2004. There was strong housing activity in the UK, Finland, France, Italy, Norway, Spain and Switzerland, whereas Germany, Austria, and several eastern European countries (including Poland, Hungary and the Czech Republic) conspicuously lagged behind. There are concerns that in some countries strong increases in housing prices reflect a bubble, which, in the event it should burst and lead to a sudden sharp fall in real estate prices, would significantly dampen economic activity. Some experts even point to the risk of a deflationary spiral, as has been experienced in Japan since the 1990s (table 3.2.3). The uneven dynamics of residential construction may cause problems for the 12-nation euro zone, where interest rate increases may be needed for some countries to cool the housing sector while it would be an added burden for the private sector, activity in other member countries.

TABLE 3.2.3

House price indices in selected countries, 2003-2004

(% change over the same period of the previous year)

	Q3 2003	*Q3 2004*	*1997-2004*
Spain	16.5	17.2	149
France	11.5	14.7	76
Britain	11.0	13.8	139
Italy	10.6	9.7	69
Germany	-4.5	-1.7	-3
United States	6.0	11.7	64
Canada	6.5	6.7	43
Japan	-4.8	-6.4	-24

Note: Q3 = third quarter.

Source: *The Economist*, 11 December 2004.

However, not all European countries have been experiencing a rapid price escalation. House prices in Austria and Germany showed no appreciation in 2004 compared with 2003 and in fact, prices in Germany have been falling for many years. In the Netherlands they increased by only 2%, while housing prices in Greece fell by 4% (*Wall Street Journal*, "In Europe, can one size fit all?", 28 February 2005). This divergence in housing price increases can also be found across the different regions within the US – the Midwest and the "Rust Belt" area (Ohio, Michigan, Indiana) have not seen the level of residential market growth enjoyed by the South and West.

Looking ahead to 2007, Euroconstruct sees several major shifts: (1) for western Europe, the large stock of occupied housing units (171 million) will ensure that R&M expenditures will outpace investment in new housing, which is expected to cool; (2) for new non-residential markets, there will be a shift from public to private expenditures; (3) for the whole Euroconstruct region, civil engineering expenditures will grow much faster (double the rate) than expenditures on buildings.

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Chapter 4

Roundwood harvests reach record levels due to higher pulp and sawnwood demand: Wood raw material markets, 2004-2005[32]

Highlights

- Total roundwood removals in the UNECE region reached record levels in 2004 reflecting a growing demand for both wood and paper products.
- Trade of roundwood continued to decline in both Europe and North America as a result of increased local processing of softwood and hardwood sawnwood.
- Huge storm hits northern Europe in early 2005, damaging 85 million m^3 of timber, which will continue to impact harvests, trade flows and wood prices in Europe into 2006.
- Fuelwood removals in Europe were approximately 14% of total removals in 2004, and with the lack of affordable non-wood biomass in many countries, there has been a rise in trade of woodfuel, increasingly in the form of wood pellets.
- The CIS increased roundwood removals by 4.7% in 2004, with exports of raw material up by almost 12% compared with 2003, amounting to almost one third of the total industrial timber harvest.
- In addition to documented harvests and exports from Russia, there are substantial volumes of undocumented roundwood removals, from the eastern provinces in particular, destined for further processing in China, which are then exported to Europe, North America and other markets.
- In North America, the share of softwood industrial roundwood grew from 2002 to 2004, primarily as a result of a substantial increase of sawn softwood production.
- Sawlog prices have been rising in most regions of North America and Europe in 2004 and 2005 as a result of higher log consumption by sawmills trying to meet the increased demand for sawnwood, mostly from the United States, Canada and central Europe.
- Prices for both pulplogs and residual chips were slightly higher in local currencies in Europe in 2004 than in 2003 and, as a result of the weaker US dollar, pulp manufacturers in Europe found themselves less competitive than many producers in the US.

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[32] By Mr. Håkan Ekström.

Secretariat introduction

Once again we are pleased to collaborate with Mr. Håkan Ekström,[33] President, Wood Resources International, for his analysis of wood raw material markets in the UNECE region. We appreciate his expertise and global perspective in roundwood, chip and wood energy markets. He is the Editor-in-Chief of two publications that follow global wood fibre markets, including prices: *Wood Resource Quarterly* and the *North American Wood Fibre Review*.

We also thank his contributors, including Ms. Eva Janssens, European Panel Federation (and coordinator of the panels chapter), Mr. Bernard Lombard, Confederation of European Paper Industries (and contributing author to the paper and pulp chapter), Mr. Ralf Dümmer, Ernährungswirtschaft, Germany, Ms. Riitta Toivonen, Finnish Forest Research Institute and Mr. Arvydas Lebedys, FAO (and contributing author to the sawn softwood chapter). Dr. Nikolai Burdin, Director, OAO NIPIEIlesprom, contributed significant information on the Russian roundwood markets (and also contributed to the sawn softwood and panels chapters).

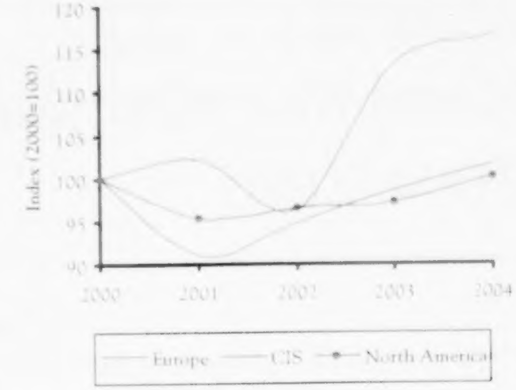
4.1 Introduction

Total roundwood removals in the UNECE region increased for the third year in a row, reaching 1.3 billion m^3 in 2004. The increase from 2003 was 3.0%, of which the largest rise was in the CIS region. Most of these removals were in the Russian Federation; production was up by 4.6% and exports by almost 10.7%. The CIS was the only subregion where the consumption of hardwood roundwood was lower in 2004 than in 2001 and 2002 (graphs 4.1.1 and 4.1.2). Over 87% of roundwood removals were for industrial uses, while the remainder was for fuel purposes. Of the total wood consumed by the forest industry, 74% consisted of softwood roundwood, which was used mainly by the sawmilling sector. The remaining 26% of wood utilized by the industry was that of hardwood species, which went mainly to the pulp and paper sector.

Trade flows of raw material have changed in recent years with lower volumes being traded in both Europe and North America (graph 4.1.3). For example, in 2004, compared with 1999, roundwood exports from Europe were 13% lower and imports 4.6% lower. In contrast, the CIS subregion is expanding its presence in the international market place, both as an exporter and as an importer of raw material.

GRAPH 4.1.1

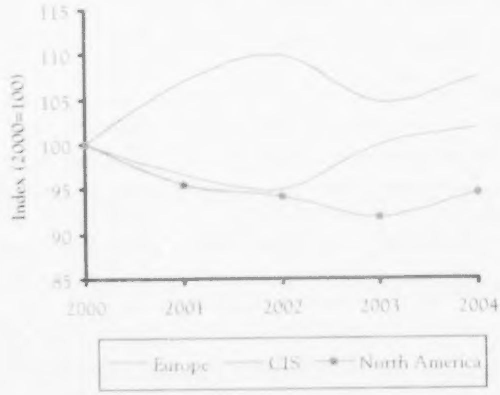
Consumption of softwood roundwood in the UNECE region, 2000-2004



Source: UNECE/FAO TIMBER database 2005.

GRAPH 4.1.2

Consumption of hardwood roundwood in the UNECE region, 2000-2004



Source: UNECE/FAO TIMBER database, 2005.

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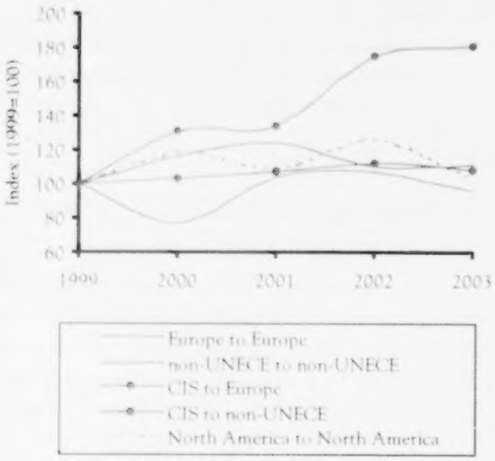
GRAPH 4.1.3

Industrial roundwood trade flows, 1999-2003



Source: UN Comtrade/EFI, 2005.

4.2 Europe subregion

Consumption of sawnwood, panels and paper in Europe stood at record levels in 2004. This resulted in higher demand for roundwood, which totalled 464 million m^3, up 2.6%, compared with 2003 (table 4.2.1). Slovakia, Poland, France, Germany, Estonia and Lithuania were among the markets consuming substantially more softwood roundwood in 2004 than in 2003. Much of the increase was the result of higher consumption of softwood sawnwood throughout Europe and North America. The demand for hardwood roundwood was also higher in 2004, though with a smaller increase than for softwood. The biggest changes came in eastern Europe, particularly in Slovakia, Poland and the Baltic States. An increasing share of raw material in eastern Europe is being processed domestically, thus lowering export volumes of roundwood.

The severe storm that swept across northern Europe in early January 2005 will have a considerable impact on harvest activities, trade flows and wood prices in Europe during 2005 and much of 2006. In just one day, around 85 million m^3 of timber was damaged in what is said to be the worst forest catastrophe in the Nordic countries in over 100 years. Most of the damage was in southern Sweden, where an estimated 75 million m^3 was affected, but Denmark and the Baltic States were affected as well. The volume of timber that needed to be logged and removed after the storm is equivalent to almost 70% of the total annual harvest in the Nordic countries and the Baltic States combined.

TABLE 4.2.1

Roundwood balance in Europe, 2003 - 2004

(1,000 m^3)

	2003	2004	Change %
Removals	428 190	437 303	2.1
Imports	60 284	61 205	1.5
Exports	36 047	34 440	-4.5
Net trade	-24 237	-26 765	...
Apparent consumption	452 427	464 068	2.6
Of which: EU-25			
Removals	366 435	374 199	2.1
Imports	55 125	55 401	0.5
Exports	32 740	30 922	-5.6
Net trade	-22 385	-24 479	...
Apparent consumption	388 820	398 678	2.5

Source: UNECE/FAO TIMBER database, 2005.

The damaged timber belonging to the members of the forest landowner associations in southern Sweden is estimated to be almost 40 million m^3, of which only about 70% will be commercially utilized. The remaining 30% will be either left in the forests or used for fuel. At the current logging rate, most damaged timber will have been removed by mid-2006. Most pulpmills in the region have stopped importing roundwood from the Baltic States and Russia and instead are actually exporting roundwood to Norway, Finland, the Baltic States and Germany. As a result of the large supply of sawlogs, many sawmills not only stockpiled considerable volumes of logs but also increased production levels by adding shifts and extending production during the traditional summer holidays. In addition to increased roundwood exports, it is also possible that exports of sawnwood from southern Sweden will be higher in 2005, with additional volumes being shipped to Europe, the US and Japan. Another consequence of the oversupply was that roundwood prices fell by between 20 and 30% in the Baltic States. In Lithuania, in a concession to forest landowners, the Government exempted their personal income tax by 25% from sales of roundwood for 2005 and 2006.

Wood fibre consumption by the particle board and MDF industries was up by 5.1% and 4.9%, respectively, in 2004, as compared with 2003. The MDF sector is a fairly large consumer of roundwood, which accounted for 70% of its total fibre furnish in 2004. Particle board manufacturers consumed approximately 24% roundwood, with the remanding volumes being either sawmill residues or recovered wood.

The pulp and paper industry in Europe ran at higher production levels in 2004, resulting in 2.7% additional wood fibre receipts compared with 2003. The largest increases in raw material were in the form of softwood residuals, due to higher sawnwood production and hardwood roundwood from higher removals both in Europe and the CIS. Germany, France, Norway, Slovakia and Spain consumed between 5% and 10% more wood fibre in 2004 than in 2003.

Fuelwood removals were practically unchanged in Europe in 2004, according to national statistics, which is somewhat surprising based on anecdotal evidence that consumption in many countries had risen.[14] In 2004, fuelwood removals were an estimated 63 million m^3, or approximately 14 % of total removals. Most of the consumption was in the Nordic countries, Germany, Italy, Austria and Poland. In recent years there has been considerable interest in energy from renewable energy sources as a way to reduce carbon emissions and greenhouse gases. With the lack of affordable non-wood biomass in many European countries, there has been a rise in trade of wood fuel and increasingly in the form of wood pellets. The major importing countries of biomass are Italy, importing nearly 2.0 million m.t. in 2004, followed by Belgium, Denmark, Sweden and Germany, all of which imported 750-800,000 m.t. The primary markets for wood pellets are Sweden, Denmark and the Netherlands. One new recent supplier of wood pellets to Europe is, somewhat unexpectedly, British Columbia in western Canada, which is expected to ship 475,000 m.t. in 2005 (*North American Wood Fiber Review*, 2005). British Columbia is currently suffering from a mountain pine beetle outbreak which has infested over 175 million m^3 of lodgepole pine, rising by 75 million m^3 per year, and forecast to peak in 2008 (Kozak, 2004). From mid-2005, unprocessed beetle-killed timber was not exported out of the province.

4.3 CIS subregion

Roundwood removals from the CIS increased to 205 million m^3 in 2004, 4.7% higher than 2003, and 17% higher than in 1999 (table 4.3.1 additional statistics may be found in the electronic annex). More than a quarter of this volume, 58 million m^3, is used for fuel, with the other 147 million m^3 consumed for industrial uses. Exports of roundwood increased by almost 12% in 2004 and amount to almost one third of the total industrial roundwood harvest. The Russian Federation accounts for almost 90% (182 million m^3 in 2004) of removals in the CIS subregion, which rose by 4.6 times from 2003. Harvest levels in Ukraine have increased by more than 50% since 1999. While domestic consumption of softwood roundwood in Russia has increased by 26% since 2001, hardwood roundwood consumption has declined almost 9% over the same time period.

TABLE 4.3.1

Roundwood balance in CIS, 2003 - 2004

(1,000 m^3)

	2003	2004	Change %
Removals	195 791	204 897	4.7
Imports	1 483	1 653	11.5
Exports	41 466	46 341	11.8
Net trade	39 983	44 688	11.8
Apparent consumption	155 808	160 209	2.8

Source: UNECE/FAO TIMBER database, 2005.

In 2005, removals are expected to be 4.4% higher than in 2004 according to OAO NIPIEIlesprom. In 2004 domestic consumption of roundwood increased by 2.9%, and growth of 6.3% is expected in 2005.

In 2004, Russian Federation roundwood exports, at 41.8 million m^3, were the highest ever, compared with all the years of the former USSR and Russia, making the Federation the major supplier to international roundwood markets (table 4.3.2). The majority of the trade was that of softwood sawlogs shipped from Siberia to China, Japan and The Republic of Korea, and of birch pulpwood from the western provinces to Finland. China accounts for 36.2% of Russia's industrial roundwood exports.

TABLE 4.3.2

Russian Federation sawlog and pulpwood balance, 2003-2005

(1000 m^3

	2003	2004	2005[f]
Sawlogs			
Production	54 574	58 758	65 000
Export	13 500	15 100	15 000
Import	170	200	200
Consumption	41 244	43 858	50 200
Pulpwood			
Production	50 886	54 171	56 000
Export	23 400	25 800	25 700
Import	682	804	800
Consumption	28 168	29 175	31 100

Note: f = forecast by OAO NIPIEIlesprom.

Source: OAO NIPIEIlesprom, 2005.

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[14] Efforts are under way, under the auspices of the Joint FAO/UNECE Working Party on Forest Economics and Statistics, to improve the monitoring of wood energy supply and consumption. In the meantime, traditional fuelwood statistics and their trends must unfortunately be considered unreliable.

According to Russian experts analysing Russian forest sector development, such large export volumes of unprocessed wood are not justified, as export of forest products with higher value-added processing is the most economically efficient policy. It is estimated that in 2005 a modest reduction in export of wood in the rough – by 2% – can be expected. However, due to the absence of the capacities for processing wood – pulpwood in particular – a reduction in roundwood exports in 2005 is not likely.

The pulp industry in Finland is highly dependent on Russian birch: this supply filled almost 50% of the industry's total hardwood needs in 2004. Finland receives 28.4% of Russia's industrial roundwood exports, and Japan 15.0%. Exports to Japan were up by as much as 1.2 million m^3 to 5.9 million m^3 in 2004, and sawnwood manufacturers in northeastern China imported an estimated 16 million m^3, according to official customs data. Russia's share of Chinese softwood log imports increased from 36% in 1995 to 92% in 2004.

In 2004 growth of sawlog and pulpwood exports was considerably higher than the growth of domestic consumption. While sawlog exports grew by 11.8%, growth of domestic consumption was only 6.3%. The equivalent figures for pulpwood are 10.3% and 3.6%. Inadequate domestic capacity for production of sawnwood and pulp are the primary reasons for this.

In 2005, a change is expected: the rate of growth of sawnwood and pulpwood domestic consumption will outstrip the rate of growth of exports. However, this will only be possible if new capacities are commissioned and if utilization of currently operating capacities for production of sawnwood and pulp and paper improve.

In terms of the other component of roundwood, fuelwood is mainly used for energy, but is also used partly as raw material in wood-based panel production and hydrolysis processes. Depending on its cost and availability, use of small-diameter roundwood for sawnwood, panels or energy continues to blur the distinction between industrial roundwood and woodfuel in the trade classifications.

There are also substantial volumes of undocumented roundwood removed from the Russian forests, particularly in the eastern provinces. Some officials in the Ministry responsible for overseeing Russia's timber harvest have suggested that illegal logging may represent less than 1% of total harvest. A recent study has estimated that 15%-20% of the harvest may be defined as illegal and that the percentage of log export volumes of suspicious origin may be even higher (American Forest and Paper Association, 2004). Most illegally logged trees are exported to China, where controls on the legality of the source of logs are not as stringent as in Europe and Japan.

The same study shows that in aggregate, about 8% of the world's roundwood harvest originates from suspicious sources, resulting in 6% of the raw material used to produce sawnwood and 17% of the raw material for plywood. Most illegal material is consumed domestically and does not enter international trade, although processed products from illegally sourced timber are exported to both Europe and North America. On a world scale, approximately 12% of softwood roundwood exports and 17% of hardwood roundwood exports are suspect. According to the study, Eastern Russia, Indonesia, Brazil and West Africa are among the regions with the largest problems with illegal roundwood production.

4.4 North America subregion

North America accounted for over 50% of the total roundwood consumption within the UNECE region in 2004 (table 4.4.1). The US consumed 450 million m^3, the highest level in the five years since 1999. Consumption of softwood industrial roundwood was 280 million m^3, or 69% of total industrial roundwood demand. This share has grown since 2001, mainly as a result of a substantial increase of softwood sawnwood production during this period.

TABLE 4.4.1

Roundwood balance in North America, 2003 - 2004

(1,000 m^3)

	2003	2004	Change %
Removals	638 716	657 878	3.0
Imports	9 374	9 265	-1.2
Exports	15 686	15 517	-1.1
Net trade	6 312	6 252	-0.9
Apparent consumption	632 404	651 626	3.0

Source: UNECE/FAO TIMBER database, 2005.

The Canadian industry, too, consumed more roundwood in 2004 as a result of the higher volumes of softwood sawnwood being produced for the continued strong US housing market. Most of the expansion of industry capacity in 2004 and 2005 has been in the western provinces of British Columbia and Alberta, while sawmill production in Quebec and Ontario has stagnated.

The border trade between the US and Canada has been declining since 2000 as a result of additional processing of timber domestically. In 2004, 9.0 million m^3 were traded between the US and Canada compared with 10.0 million m^3 in 2001. North American exports of roundwood to Japan were up in 2004 for the first time in eight years as Japanese buyers showed increased interest in, particularly, Douglas-fir and hemlock from the US and Canadian west coast.

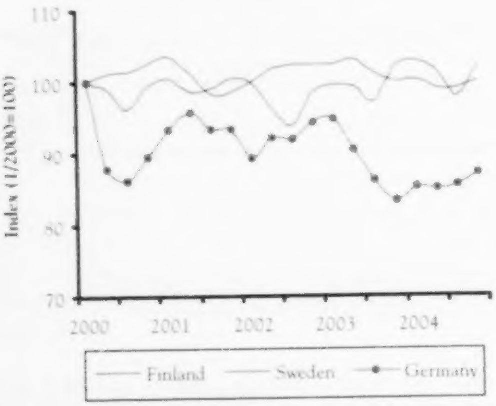
Fuelwood consumption was higher in both Canada and the US in 2004 as a result of higher usage of small logs for fuel and for the production of wood pellets. As a result of higher oil prices and the Kyoto agreement, this end use will most likely grow in coming years, attracting interest from both domestic energy producers in North America as well as European energy producers.

4.5 Raw material prices

Sawlog prices have risen in most regions of North America and Europe during 2004 and 2005. Many price increases have been the result of higher log consumption by sawmills trying to meet the increased demand for sawnwood, mainly in the US, Canada and central Europe. In the Nordic countries, softwood sawlog prices (in US dollars) reached levels not seen in 10 years (graph 4.5.1). Although prices were higher in domestic currencies, most of these increases were the result of the weak US dollar.

GRAPH 4.5.1

Delivered softwood sawlog prices in Europe, 2000-2004



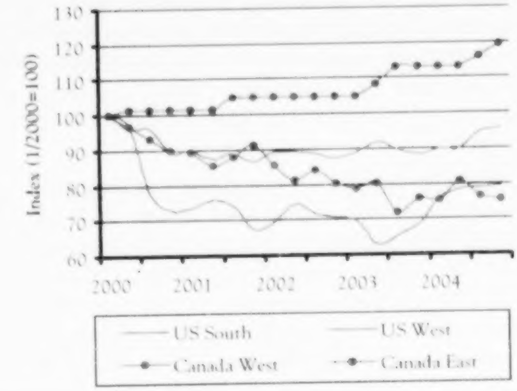
Note: Index based on delivered log price per m³ under bark in local currency.

Source: *Wood Resource Quarterly*, Wood Resources International, 2005.

In the southeastern US, which accounts for about 60% of the total softwood harvest of the US, softwood sawlog prices increased by almost 10% during 2004 due to higher competition for roundwood, longer hauling distances and higher fuel costs. Pine sawlog prices, averaging $70/m³ delivered, are now at the highest point in over five years (graph 4.5.2).

GRAPH 4.5.2

Delivered softwood sawlog prices in North America, 2000-2004



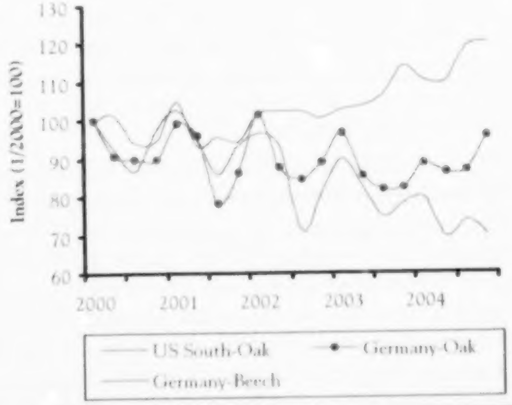
Note: Index based on delivered log price per m³ under bark in local currency.

Source: *Wood Resource Quarterly*, Wood Resources International, 2005.

Prices for oak sawlogs in the southeastern US south have risen for more than four years and were 35% higher in the first quarter of 2005 than in 2001 (graph 4.5.3). This increase in price has had little to do with changes in demand, but rather more to do with tight log supply and higher transport costs. For comparison, oak sawlog prices in Germany, one of the largest hardwood sawnwood-producing countries in Europe, were also higher mainly due to increased demand for oak sawnwood in the parquet and furniture industries.

GRAPH 4.5.3

Delivered hardwood sawlog prices, 2000-2004



Note: Index based on delivered log price per m³ under bark in local currency.

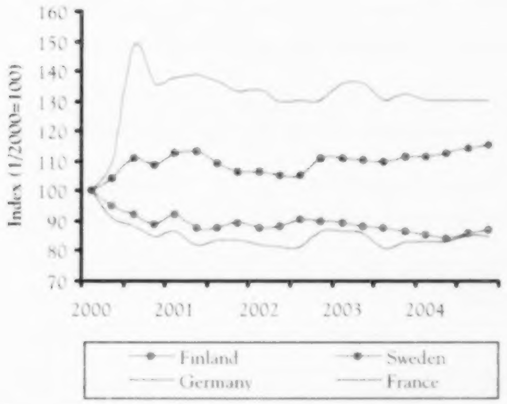
Source: US South: Timber Mart-South and Germany: ZMB, 2005.

In contrast, demand for beech sawlogs has been weak in Germany, resulting in falling prices during most of 2004 (again graph 4.5.3).

With an increase in wood fibre consumption by the pulp and paper industry in Europe, prices for both pulplogs and residual chips were slightly higher in local currencies in 2004 than in 2003 (graph 4.5.4). As a result of the weakening US dollar against most currencies around the world, pulp manufacturers in Europe found themselves less competitive than producers in the US, especially with falling North American pulplog prices (graph 4.5.5). Pulpwood prices for most markets in Europe were substantially higher than the 2004 Global Average Wood Fiber Price of $83.60/oven-dry metric ton (odmt) (delivered) for softwood and $77.10/odmt for hardwood. The Nordic countries and Germany currently have some of the highest wood fibre costs in the world, ranging from $130/odmt to $150/odmt for softwood fibre and from $95/odmt to $110/odmt for hardwood.

GRAPH 4.5.4

Delivered softwood pulplog prices in Europe, 2000-2004

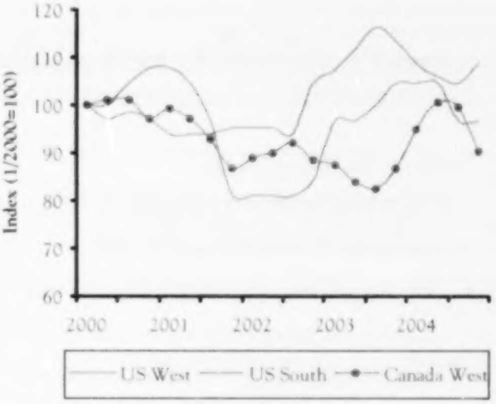


Note: Index based on delivered log price per oven-dry metric ton, in local currency.

Source: *Wood Resource Quarterly*, Wood Resources International, 2005.

GRAPH 4.5.5

Delivered softwood pulplog prices in North America, 2000-2004



Note: Index based on delivered log price per oven-dry metric ton, in local currency.

Source: *Wood Resource Quarterly*, Wood Resources International, 2005.

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Additional statistical tables for this chapter may be found in the electronic annex on the UNECE Timber Committee and FAO European Forestry Commission website at: www.unece.org/trade/timber/mis/fpama.htm

Tables for this chapter include:

- Roundwood apparent consumption, 2000-2004
- Removals of roundwood, 2000-2004
- Exports and imports of roundwood (volume), 2000-2004
- Exports and imports of wood residues chips and particles, 2000-2004
- Exports and imports of roundwood (value), 2000-2004
- Roundwood balance in UNECE, 2000-2004
- Major industrial roundwood trade flows, by major countries, 1999-2003

Full statistics used in the *Forest Products Annual Market Review, 2004-2005* may be found in the UNECE/FAO TIMBER database at:

www.unece.org/trade/timber/mis/fp-stats.htm#Statistics

Chapter 5

Exceeding Timber Committee forecasts, sawn softwood markets rise to record levels: Sawn softwood markets, 2004-2005[35]

Highlights

- Europe and North America achieved record levels of sawn softwood consumption, production and trade in 2004.
- In North America, heightened market activity resulted from favourable interest rate policies and surging housing starts (also at record highs), which continued into 2005.
- European exports to the United States and Japan increased dramatically in 2004 and continued increasing in early 2005.
- Russia's sawnwood exports were at record levels in 2004 as favourable policies promoted foreign direct investment; however, domestic consumption has continued to fall dramatically.
- Major investment projects in new capacity are taking place in Germany to take advantage of available raw materials and strong market demand for sawnwood and its by-products.
- Windstorms hit the Baltic Sea region in 2005, causing severe forest damage in many countries, and resulting in an oversupply of roundwood and sawnwood.
- Baltic sawmills have become an integrated part of the international Nordic forest industries as fibre sources, e.g. chips, as satellite production facilities, and as a "jump-point" to eastern forest resources from Belarus and Russia.
- Membership of the Baltic countries in the EU has had positive effects in the sawnwood and other sectors, e.g. open borders with fewer customs formalities mean faster, less costly delivery.
- European sawnwood exports continue to gain US market share while Canadian exporters continue to face US countervailing and anti-dumping duties; near-record high prices, however, allowed all suppliers to achieve strong financial returns in 2004.
- British Columbia's mountain pine beetle epidemic led the provincial government to expand its massive salvage programme and industry has responded with significant sawmill investments to process the increasing volumes of dead timber.
- In the first quarter of 2005, North America became a net importer of sawn softwood for the first time as offshore imports exceeded exports to offshore destinations and in 2004, North American sawn softwood imports exceeded European imports for the first time.

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[35] By Dr. Nikolai Burdin, Mr. Antti Koskinen, Mr. Arvydas Lebedys and Mr. Russell E. Taylor.

Secretariat introduction

This year, we are pleased to welcome some new analysts to the production of the sawn softwood chapter. In alphabetical order, we thank the authors of this chapter, starting with Dr. Nikolai Burdin,[16] Director, OAO NIPIEllesprom, Moscow. He is our statistical correspondent for Russia and wrote the analysis for the CIS subregion, as he has done in previous years. Dr. Burdin was formerly Chairman of the UNECE Timber Committee and the FAO/UNECE Working Party on Forest Economics and Statistics.

Mr. Antti Koskinen,[17] Consultant, Jakko Pöyry Consulting, wrote the western Europe subregion analysis. Mr. Koskinen is a member of the UNECE/FAO Team of Specialists on Forest Products Markets and Marketing, and previously contributed to the *Forest Products Annual Market Review* as a student intern in 2000. He has consulted for the UNECE/FAO and spoken at the Timber Committee Market Discussions.

Mr. Arvydas Lebedys,[18] Forestry Officer—Statistics, FAO, has previously contributed information about central and eastern European markets. This year he supplied the information on the Baltic States developments.

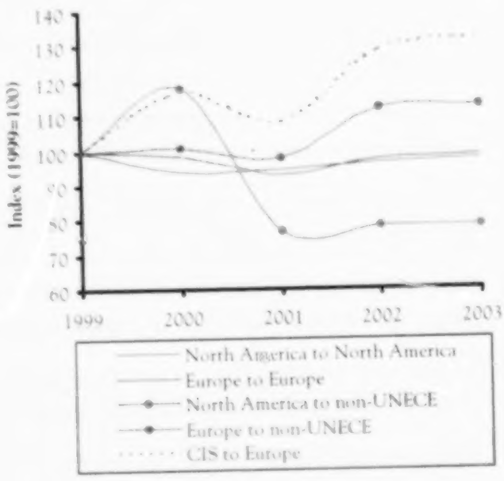
Mr. Russell E. Taylor,[19] President, R. E. Taylor & Associates Ltd., Forest Industry Strategic Services and Managing Director and Publisher, International WOOD Markets Research Inc., analysed the North American markets. Mr. Taylor is also a member of the UNECE/FAO Team of Specialists on Forest Products Markets and Marketing, and presented forest products market and policy developments at the 2004 Timber Committee Market Discussions.

5.1 Introduction

Sawn softwood markets accelerated to record levels in the UNECE region in 2004. Production of sawn softwood in Europe and North America rose by 3.6% and 5.3% respectively. Region-wide, production advanced 5.3% to reach 248 million m^3 and consumption by 5.9% to reach 229 million m^3. Exports and imports were at record levels in all three subregions, Europe, North America, and the CIS, and of course in the region as a whole. The advancement in trade in 2004 overcomes the stable flows in 2003 (graph 5.1.1).

GRAPH 5.1.1

Sawn softwood trade flows, 1999-2003



UN COMTRADE/EFI, 2005.

On the other hand, production in the CIS has not returned to the 1992 peak, which occurred at the initiation of the transition period when mills were still running at high capacity and when consumption in Russia was high. Sawn softwood consumption continues to drop in Russia, falling nearly 12% in 2004 to a low of 6.7 million m^3. At the same time, with attractive export prices, Russia's exports hit record levels at 12.2 million m^3. However as production increased less, by only 6.6%, consumption fell.

Developments in sawn softwood are directly linked to favourable construction markets in North America and Europe, as evidenced by record consumption in both subregions, as well as strong demand outside the region, for example in Japan and the Middle East. Some of the market gains can be attributed to promotion of wood-based construction by Governments, often through trade associations. Obviously government policies to stimulate national economies have revived housing and other construction markets, creating demand for sawnwood. In the US, tightening of lending rates by the Federal Reserve over the last 18 months has not slowed housing construction, as consumers seek a safe refuge for their savings by placing them in housing, rather than in the weak stock market or in low-paying savings accounts.

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5.2 Europe subregion

In 2004 consumption of sawn softwood increased only moderately in the EU-25, by 2.5%, but by more in all of Europe, by 3.4%, indicating stronger growth outside the EU-25 (table 5.2.1). Nevertheless, these increases were at new record levels. In the United Kingdom, the main importer in the subregion, consumption decreased by 0.6% and in France and Germany the increase was only marginal, by 1.7% (according to the European Organisation of the Sawmill Industry) and 1.2%, respectively. However, some smaller markets showed more positive consumption trends: Belgium, Italy, Norway and Switzerland increased consumption over the EU-25 average. This was partly due to a good year in the residential construction sector in 2004, particularly in Belgium, Norway and Switzerland.

TABLE 5.2.1

Sawn softwood balance in Europe, 2003 - 2004

(1,000 m^3)

	2003	2004	Change %
Production	97 998	101 477	3.6
Imports	38 290	39 098	2.1
Exports	43 752	44 906	2.6
Net trade	5 462	5 808	6.3
Apparent consumption	92 536	95 669	3.4
Of which: EU-25			
Production	87 783	90 274	2.8
Imports	35 722	36 472	2.1
Exports	40 512	41 686	2.9
Net trade	4 790	5 213	8.8
Apparent consumption	82 993	85 060	2.5

Source: UNECE/FAO TIMBER database, 2005.

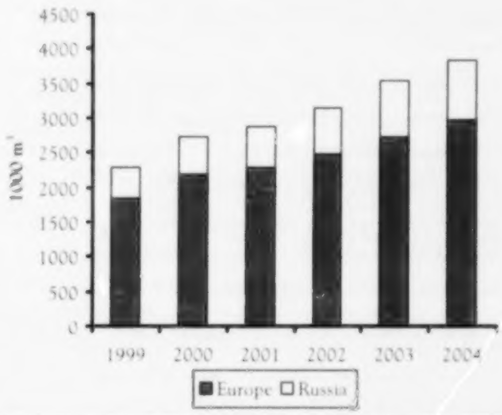
Considerable production increases were seen in Austria and Germany. These two countries increased their output by 6.4% and 6.8%, respectively. Germany became the leading sawnwood producer in Europe in 2004, while Sweden increased only slightly. After a record year in 2003, Finland's sawn softwood production declined by 1.4%.

Despite the stagnant demand in the main European markets, most of the western European producers increased their exports. Increasing exports were mainly driven by overseas markets and also by smaller EU markets such as Belgium, Italy and Ireland. Europe as a whole has been a net exporter of sawnwood for some years, but with growing exports and stagnant demand, western Europe has also become a net exporter.

European suppliers were able to increase exports to smaller EU markets as well as to overseas markets. European exports to Japan increased by 9% to over 3 million m^3 (graph 5.2.1). Despite the strong euro, Finland increased its exports to Japan by 14% to 1.1 million m^3, gaining market share. The Baltic and eastern European countries also contributed to the increase, whereas other traditional European suppliers such as Sweden and Austria exported slightly decreased volumes.

GRAPH 5.2.1

European and Russian sawn softwood exports to Japan, 1999-2004



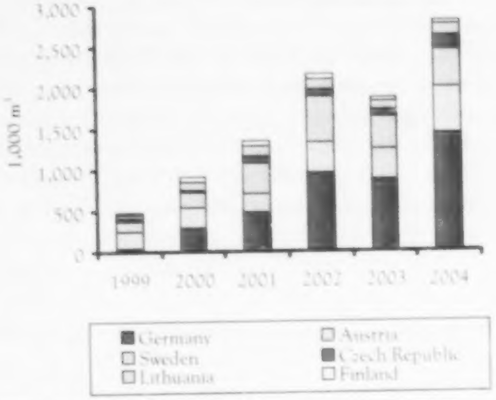
Source: *Japan Lumber Journal*, 2005

Strong prices in the US due to record housing starts and high sawnwood demand compensated for the strengthening of the euro. European producers increased their exports to the US by a phenomenal 52%. The two leading exporters, Germany and Austria, increased their volumes significantly, by 63.4%, to reach 1.4 million m^3 and by 50.7% to reach 0.6 million m^3, respectively (graph 5.2.2).

In North Africa, the Nordic suppliers lost market share to Russia in Algeria, but in Egypt both Finnish and Swedish suppliers were able to increase their exports in 2004. However, Finland and Sweden have lost their combined market share in Egypt from 72% in 1998 to 35% in 2004. Algeria and Egypt have traditionally been important lower grade markets for Finland and Sweden with a total export volume of 1 million m^3. Russian suppliers have been able to compete with lower prices and the export and import companies have been expanding their operations throughout Russia.

GRAPH 5.2.2

Sawnwood exports from selected European countries to the United States, 1999-2004

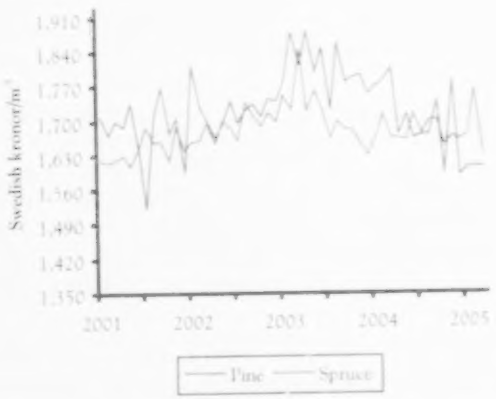


Source: *Wood Focus, EUWID, Wood Markets Monthly*, 2005.

Prices in most of Europe continued to decline. Pine prices were especially under pressure. In both Finland and Sweden the average export price for pine has dropped below the spruce price. Sweden was able to maintain better price levels in kroner due to a weakening kronor against the euro (graph 5.2.3).

GRAPH 5.2.3

Sawn softwood export prices from Sweden, 2001-2005



Source: Swedish Forest Industries Federation, 2005.

Profitability in the Nordic countries remained poor and companies are looking at mill closures and production curtailments rather than investing in new capacity. Investments in the European sawmill industry are now focused on Germany. Several German and Austrian companies have announced investment plans that could bring a total of 2-3 million m³ of additional capacity to western Europe. New investments are driven by additional raw material resources resulting from revised forest inventories as well as the good performance of the central European sawmills in the US market.

Some unexpected events in the Nordic countries in 2005 have had an impact on the sawmill industry. In Sweden a storm in early January 2005 felled approximately 75 million m³ of timber, which is equivalent to a normal annual harvest. The storm also felled 9 million m³ in the Baltic countries. Following an enormous oversupply of logs, the sawmills in southern Sweden, in particular, were able to push log prices down and increase their production volumes. With lower softwood prices, exports were 6.5% higher in January and February 2005 in comparison with the same period in 2004. Exports, especially to the US, increased by 89%, during the respective period. However, the production level had stabilized by mid-2005, returning approximately to the 2004 level.

In Finland the pulp and paper mills were closed for seven weeks during the spring and summer of 2005 following a labour dispute that had a direct effect on the Finnish sawmill industry. Several sawmills halted production as they were unable to sell their chips. Preliminary estimates of lost production due to the labour dispute vary from 0.5 to 1.0 million m³ for 2005. However, the production decrease over the year as a whole could be smaller due to changes in production scheduling and market strength in the second half of 2005.

The interrelationship between the Baltic sawmilling industry, the raw material supply and the export markets for sawnwood and mill residues provides a fascinating insight into developments in the countries that have come through the transition process over the last 15 years. Removals from Baltic forests have decreased during the last two years, falling by 4% in 2004, for two reasons: (a) private forestland owners often harvested their forests according to their management plans following restitution of their land (restitution is completed in Latvia, and about 80% complete in Estonia and Lithuania) and (b) following heavy cutting, the allowable cuts have been reduced on state lands (which yield approximately 50% of roundwood for the Baltic sawmills). However sawmill capacity grew dramatically, aided significantly by favourable government polices combined with enterprising Nordic companies, as well as by other multinational firms from the UK, Canada and Germany.

Estimates by the Finnish Forest Industries Federation and Finnish Sawmills, 2005.

In general, the Baltic sawmilling industry has no possibility of increasing capacity due to domestic resource limitations, especially in Latvia and Estonia. The fact that capacity has been maximized is illustrated by the lack of any significant new sawmills in the Baltics since 2003, when Stora Enso built a 180,000 m^3 capacity sawmill in Lithuania.

Baltic sawmills are compensating for the shortfall in domestic resources by increasing imports of logs and rough sawnwood for further processing, mainly from Russia and Belarus. In 2004, the three Baltic countries' roundwood imports soared by 70% to 2.5 million m^3 and sawn softwood imports increased by 60% to 1.5 million m^3. The same year, imported roundwood (mainly softwood sawlogs) accounted for 8% of log supply in the Baltics. Imports are rising quickly; for example in Latvia during the first four months of 2005, imports of softwood sawlogs increased by another 56%,[41] over the same period in 2004.

During the last few of years several sawmill bankruptcies have occurred for smaller, older, inefficient mills while others shifted to production of greater value-added products (joinery, prefabricated buildings, furniture parts, etc.). It is difficult for older mills to compete with modern mills, which are often subsidiaries of multinational, Nordic-based firms. Subsidiaries can cope more easily with tight competition, unstable supply/demand situations and significant log price increases. The structure of the Baltic softwood sawmill sector has become similar to the Nordic industry – large-scale sawmills employing modern technologies.

The mills are dependent on selling not only sawnwood, but also their by-products. Modern mills have debarkers with bark fuelling their dry kilns. From a debarked log, an efficient mill will achieve a 45% yield of sawnwood, even from small-diameter logs (down to 12 centimetres), plus 40% chips and 15% sawdust. If sawnwood is planed, that will generate additional, high quality residues since planer shavings are dry. Debarked logs produce clean chips which are exported to the parent companies' Nordic pulpmills. The construction of a Baltic pulpmill forecast in previous *Reviews* was indefinitely postponed in February 2005; hence all pulp chips continue to be exported.

Without a pulpmill, chips that are not exported are burned in municipal boilers. Government wood energy promotional policies have successfully generated municipal wood-fired heating systems. However, with competition for residues between panel and energy producers, residue prices in the Baltics increased by 20% in 2004.

Sawdust is sold to domestic particle board producers, the energy sector and fuel pellet and briquette manufacturers. Prices paid by pellet manufacturers for sawdust exceed the price offered by buyers in other sectors. The result is heightened competition for residues. Financed partially by EU development funds, a new particle board plant is scheduled for Lithuania in 2006, which will further increase residue competition.

Further evidence of the completion of the transition process by the Baltic countries is seen in the drop in roundwood exports by 35.3% since 2003. Sawnwood exports fell by 34.2% during the same period, while domestic consumption is constantly increasing. But the sector's revenues are increasing due to greater value-added production.

The storms that struck Sweden in January also hit the Baltic countries, which sustained windthrow of up to 9 million m^3, equivalent to 30% of a normal annual harvest, affecting sawnwood markets. Latvia sustained windthrow damage at 7.3 million m^3, equivalent to 50% of an annual harvest. Less affected were Lithuania with 0.8 million m^3 and Estonia with 0.5 million m^3. Approximately 300,000 m^3 of Stora Enso's oversupply of sawlogs from Sweden is scheduled for processing in the company's Estonian sawmills.[42]

The oversupply of sawmill chips from the storms in Scandinavia, coupled with the labour strike and lockout of the Finnish paper mills in May and June 2005, had a serious impact on Baltic sawmills. Mills had to reduce and even stop production in the summer, as there was no chip market. Bulky and not easily stored in either ports or sawmill yards, chips are a critical source of income for Baltic sawmills and amounted to $83 million in revenues in 2003 for the 2.5 million m^3 exported. This is in comparison with $716 million in revenues for sawn softwood. In the first four months of 2005, Latvia's chip exports declined by 35% over the same period in 2004. The situation was similar for Lithuania. As a result of the oversupply, prices for softwood sawlogs and pulplogs declined sharply. In Latvian and Lithuanian ports, pulpwood prices declined from 35 euros per m^3 in January to 17 euros per m^3 in May and June 2005. Sawlog prices also decreased by about 10%.

Finally, one further development merits mention. The accession to membership of the EU in 2004 of the Baltic countries has had positive effects in the sawnwood and other sectors. Aside from the above-referenced EU development funds for the particle board mill in Lithuania, there have been cost savings from trade with fellow EU member countries. Open borders with fewer customs formalities have translated to faster, less costly delivery.

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[41] Latvian Department of Forest Resources, Ministry of Agriculture, www.zm.gov.lv/forestry/index.php?language=2

[42] "Baltijos miskai ir mediena" (in Lithuanian, forestry magazine "Baltic forest and timber"), Vol. 5(7), May 2005.

5.3 CIS subregion

Sawn softwood production rose in 2004 in the CIS subregion, with an increasing share being exported outside the subregion (table 5.3.1).

TABLE 5.3.1

Sawn softwood balance in CIS, 2003 - 2004

(1,000 m^3)

	2003	2004	Change %
Production	21 159	22 323	5.5
Imports	748	806	7.8
Exports	12 440	14 565	17.1
Net trade	11 692	13 759	17.7
Apparent consumption	9 468	8 565	-9.5

Source: UNECE/FAO TIMBER database, 2005.

Sawnwood markets in the CIS are dominated by Russia's production and exports. Approximately 88% of the sawnwood produced is softwood, and the softwood share of exports is 96%.

In 2004 production of sawn softwood in Russia increased by 6.6% over 2003. In 2005, 2.3% growth of sawn softwood is expected (table 5.3.2). Sawn softwood exports leapt by 20.2% in 2004, and further growth of 5.3% is forecast for 2005. Sawn softwood is exported to Europe, Asia and Africa. In 2004 the main shares of exports from Russia were as follows: Egypt 9.2%, China 7.5%, Japan 5.2%, United Kingdom 5.2%, Germany 4.8%, Islamic Republic of Iran 4.8% and Italy 3.6%.

TABLE 5.3.2

Production, trade and consumption of sawn softwood in the Russian Federation, 2003-2005

1000 m^3

	2003	2004	2005f
Production	17 736	18 900	19 340
Exports	10 156	12 208	12 860
Imports	5	5	5
Apparent consumption	7 585	6 697	6 485

Note: f = forecast by OAO NIPIEIlesprom in 2005.

Source: OAO NIPIEIlesprom, 2005.

As mentioned already in previous issues of the *Review*, Russian consumption of sawnwood is in a freefall. The maximum consumption occurred in 1992 with 37.8 million m^3. A further 12% drop occurred in 2004, falling to 6.7 million m^3. This trend will remain in 2005. In the opinion of OAO NIPIEIlesprom, this situation warrants further analysis to understand why this is occurring.

To meet the demands of export markets, the Government of Russia has announced that forests will be certified for sustainable management. Investment in kilns has been evident throughout Russia to provide export customers with higher quality, kiln-dried sawnwood. Both of these developments should improve access to key markets and customers.

5.4 North America subregion

Market developments in North America were highlighted by strong sawn softwood demand in 2004 for the third consecutive year, a trend that continued into the first half of 2005 (table 5.4.1). Record level US housing starts of 1.95 million units, as well as surging sawn softwood production (65.2 million m^3) and demand (105.5 million m^3), were fuelled by ongoing government economic policies supporting low interest rates (graph 5.4.1). A favourable US economy led to improved consumer confidence and this helped to establish further increases in housing starts as well as in repair and remodelling activity. Collectively these two sectors account for over 70% of US sawnwood demand. Similar developments occurred in Canada, where housing starts reached their highest levels since 1987 at 233,400 units.

TABLE 5.4.1

Sawn softwood balance in North America, 2003 - 2004

(1,000 m^3)

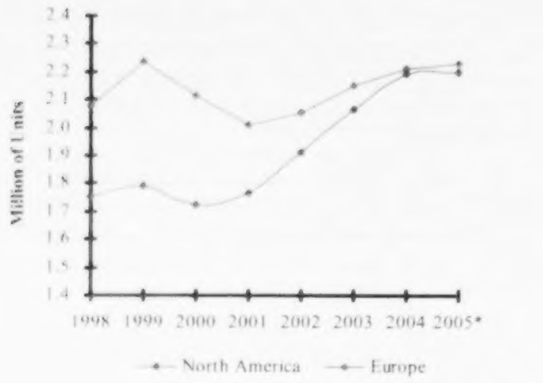
	2003	2004	Change %
Production	116 322	124 075	6.7
Imports	36 428	42 079	15.5
Exports	38 235	41 118	7.5
Net trade	1 807	-961	...
Apparent consumption	114 515	125 036	9.2

Source: UNECE/FAO TIMBER database, 2005.

Strong demand for building products, coupled with transportation and logistical problems in North America, established record and near-record sawnwood prices (graph 5.4.2) in 2004 and also in plywood and OSB (although all prices peaked by mid-year). These events did not go unnoticed by offshore suppliers, as European and southern hemisphere softwood sawnwood exporters responded with record-level shipments to the US. Conversely, North American shipments to Europe bounced along at record lows (graph 5.4.3) despite the weakening dollar against the euro.

GRAPH 5.4.1

Housing starts in North America and Europe, 1998-2005

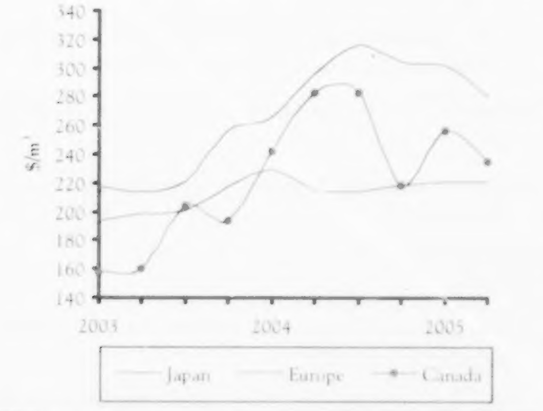


Note: f = forecast by Canadian Mortgage and Housing, National Association of Home Builders and Euroconstruct in 2005.

Sources: Canadian Mortgage and Housing, National Association of Home Builders and Euroconsruct, 2005.

GRAPH 5.4.2

Sawn softwood prices in Canada, Japan and Sweden, 2003-2005

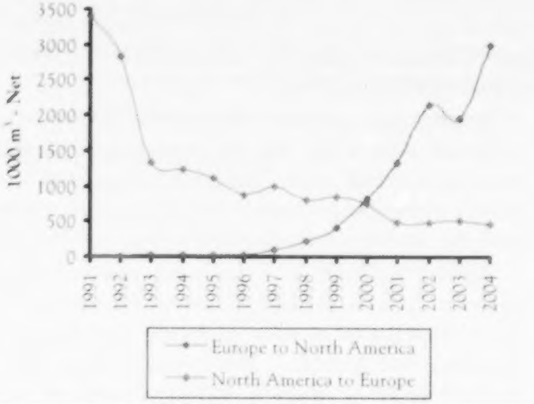


Notes: Japanese prices are for west coast spruce/pine/fir for 2x4s at actual size for J-Grade, kiln dried, random length, FOB Japan. West coast spruce/pine/fir 2x4s at actual size for grade # 2 & better, kiln dried, random length, FOB British Columbia Sawmills. Swedish prices are spruce and pine 2x4 equivalent (47x100mm), kiln dried, random length, FOB Europe.

Source: *WOOD Markets Monthly Newsletter*, 2005.

GRAPH 5.4.3

Sawn soft exports between North America and Europe, 1991-2004



Source: *WOOD Markets Monthly Newsletter*, 2005.

In the first quarter of 2005, North America became a net importer of sawn softwood for the first time as offshore imports exceeded exports to offshore destinations. Simultaneously, total North American imports exceeded total European imports for the first time (including imports within each subregion). Given the projected strength of the US markets, the ongoing US-Canada softwood dispute and the potential for some timber supply dislocations within North America, a net import trend is expected to continue for the rest of the decade.

Canadian exporters continued to dominate the US market, with an 89% share of sawn softwood imports in 2004 with another record shipment volume (37 million m³, an increase of 8.3% over 2003). This was despite the countervailing and anti-dumping duties, which together totalled 21% as of mid-2005 (down from the original 27.2% in 2002),[11] which has been levied against Canadian exporters from the ongoing US-Canada Softwood Lumber Agreement. The record prices in 2004 allowed Canadian producers to pass these duties back to their US customers when forest products companies had spectacular financial and earnings results. Rulings by the World Trade Organization (WTO) and the US Department of Commerce have continued to be in Canada's favour on this dispute, but as of mid-2005, no end is in sight as the US administration and Coalition for Fair Lumber Imports continue to prolong the dispute through numerous legal processes. Duty payments of around $4 billion have been collected by the US Government and the potential re-distribution of these duties is now one of the principal negotiating points. The controversial Byrd Amendment allows for the redistribution of all collected duties to US petitioning mills if the case is won, but the WTO has already ruled against this process though the US administration has not so far conceded this ruling.

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[11] Joint UNECE Timber Committee and FAO European Forestry Commission Market Statement, October 2004, www.unece.org/press/pr2004/04tim_n01e.htm.

Another policy initiative affecting the US sawnwood market in 2004 is the ban on copper-chrome-arsenate preservative-treated wood. There has been a remarkably smooth production and market transition to new copper-based chemicals following the implementation of the ban.

Another regulation due to come into play in the third quarter of 2005 for all North American exporters will be the requirement for wooden packaging materials to be kiln-dried, heat treated or preservative treated. This is expected to be a relatively smooth process, as most exporters have been briefed on these new regulations. However, it is less clear if offshore importers will be able to comply on inbound shipments to North America.

Revisions to provincial government timber inventories in Canada will have pronounced implications for the North American market and its related industries in the next few years. In British Columbia, prescribed timber harvests are quickly increasing to counter the massive mountain pine beetle infestation that is now expected to kill up to 80% of all lodgepole pine trees in the province (over one third of the British Columbia interior timber harvest). The volume of attacked and dead trees is estimated at three to four times the annual allowable cut in British Columbia (historically, 75 million m^3). This volume is expected to continue to increase for at least another five years. A massive salvage programme is under way in British Columbia to harvest as many of the one-year-old attacked trees, as well as some of the older, dead trees. Consequently, the British Columbia interior harvest is expected to increase a further 10% to 20% in 2005 and increase again in 2006. An immediate reaction from the industry has been to rapidly increase sawmill capacity from numerous mill expansions and some new sawmill investments.

In eastern Canada, Ontario and Quebec are both expected to see reductions of between 15% and 25% in their timber harvests, beginning later in 2005 or in early 2006, as the provinces reduce the annual allowable cut. Already, a number of sawmill and pulpmill closures have been announced in anticipation of this Government policy initiative. However, a different picture is emerging in New Brunswick, where increased provincial timber harvests of 20% are forecast as a result of unexpectedly fast timber growth rates.

In the western US, a number of new softwood dimension[44] and stud mills have been announced as a surplus of smaller second growth US forests, coupled with a surplus of small diameter logs from the British Columbia Coast, have created expansion opportunities. Part of this new US supply is a result of timber stand improvement operations on national forests in response to the Healthy Forests Restoration Act (mentioned in chapter 2 of the current *Review*).

In western Canada, as well as the western US, industry consolidation has resulted in a number of Canadian companies becoming world class in scale (e.g. Canfor, West Fraser Timber, Tolko Industries and Interfor).

The outlook for 2005 and 2006 is for North American sawnwood consumption to attain similar levels to 2004, corresponding to housing starts and related demand. However, increased domestic sawnwood output, coupled with the potential of further off-shore imports is expected to create an oversupplied market later in 2005 or in 2006. Consequently, pressure on sawnwood prices is expected, which was already becoming evident by mid-2005.

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[44] Softwood dimension mills produce standard-sized construction sawnwood.

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Additional statistical tables for this chapter may be found in the electronic annex on the UNECE Timber Committee and FAO European Forestry Commission website at: www.unece.org/trade/timber/mis/fpama.htm

Tables for this chapter include:

- Sawn softwood apparent consumption, 2000-2004
- Production of sawn softwood, 2000-2004
- Exports and imports of sawn softwood, 2000-2004
- Sawn softwood balance in UNECE, 2000-2004
- Exports and imports of sawn softwood, 2000-2004
- Major sawn softwood trade flows in UNECE region 1999-2003

Full statistics used in the *Forest Products Annual Market Review, 2004-2005* may be found in the UNECE/FAO TIMBER database at:

www.unece.org/trade/timber/mis/fp-stats.htm#Statistics

Chapter 6

UNECE region hardwood markets strongly affected by global trade: Sawn hardwood markets, 2004-2005[45]

Highlights

- Apparent consumption of sawn hardwood in the UNECE region decreased by 3% in 2004 as compared with 2003, largely due to falling consumption by the United States furniture industry.
- Total UNECE region sawn hardwood production dropped by 3.6% in 2003 due to a 10% drop in the US, despite an increase of 5.7% in Europe.
- In line with rising consumption, European production increased as infrastructure investment continued and as eastern European harvests increased on both state and private forestland.
- In the EU-25, production was led by France, which held its production levels, with oak demand offsetting falls in beech.
- European exports have fallen steadily since 2000, sliding further by 2.6% in 2004, as the increase in oak exports did not match the reduction in exports of beech.
- US exports rose 10% in 2004 to the highest level since 2000, principally due to a 39% increase to China and a 95% increase to Viet Nam.
- Oaks have dominated sawn hardwood market consumption, leaving European beech prices to continue their long-term downward trend.
- US imports of sawn hardwood, which have risen in the last four years, jumped a further 25% in 2004, with half from Canada and most of the balance from South America.
- The 2005 sawn hardwood market has begun with nervousness, particularly in the US furniture and flooring sectors, where producers fear that some domestic market loss may be permanent and with red oak demand sharply down.
- Rising US and European imports of furniture, and now flooring, are significant in their effects on domestic production and consumption of sawn hardwood.
- Sawn hardwood producers are newly organizing themselves, in the US with the new Hardwood Federation lobbying the Government, and in Europe with the European Hardwood Export Council promoting and coordinating marketing of exports.
- Concern for the legality of the source of sawn hardwood, and its sustainable production, are reflected in public procurement policies and industries' and retailers' purchase procedures.

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[45] By Mr. Michael Buckley.

Secretariat introduction

We appreciate the collaboration in this analysis by Mr. Michael Buckley,[46] Consultant, World Hardwoods. He is Deputy Leader of the UNECE/FAO Team of Specialists on Forest Products Markets and Marketing. Apart from last year, Mr. Buckley has formerly written this chapter.

Production of the chapter is possible thanks to our continued collaboration with the American Hardwood Export Council (AHEC). Cooperative efforts between Mr. David Venables, European Director of AHEC, and the secretariat, continue to be mutually rewarding.

The secretariat and the author thank the contributors, specifically Mr. Rupert Oliver, Consultant, Forestry Industry Intelligence and Editor, hardwoodmarkets.com, Mr. Jameson French, President, Northland Forest Products and Mr. John Read, Jr., Vice-President Export Sales, Rossi American Hardwoods.

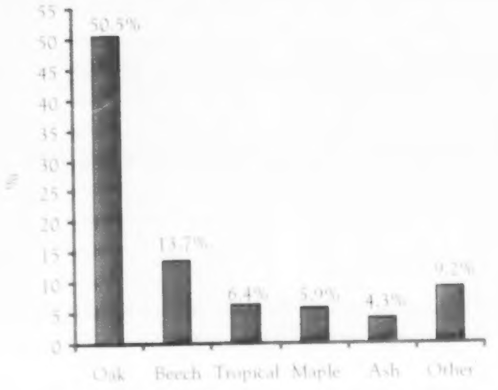
6.1 Introduction

The year 2004 saw further effects of globalization, and these appear to be accelerating for the hardwood industry in 2005. Weak ocean freight rates continue to allow access to markets from any part of the world and thus enable processors to be more geographically flexible in their investments and trading. Expansion of the European Union to 25 countries also facilitates contact and trade in hardwood products. Hardwood secondary processing has continued to chase cheap labour around the world. Despite volatility in the value of the US dollar and the strengthening of the euro, exchange rates may have played less of a crucial role in 2004 than in some recent years.

A snapshot summary would suggest that consumption, or at least secondary processing, has generally continued to shift eastwards from the former EU-15 region to countries in eastern Europe; and from the US to Asia, thus reducing production in the region as a whole. European hardwood forest resources are now beginning to play a wider role in the world marketplace as the emphasis on temperate hardwood species continues and as demand for European oak has been strong. In Europe, oak now represents 50% of all hardwood flooring (graph 6.1.1). Within the UNECE region, oak has come back into fashion and has dominated consumption, although red oak from North America is faring less well, as prices peaked in late 2004 and have continued to fall sharply through the first two quarters of 2005 as a direct reflection of US domestic demand.

GRAPH 6.1.1

European hardwood flooring species, 2004



Note: "Other" includes species with less than 2% market share: red oak, cherry, birch, eucalyptus, acacia, pine and chestnut.

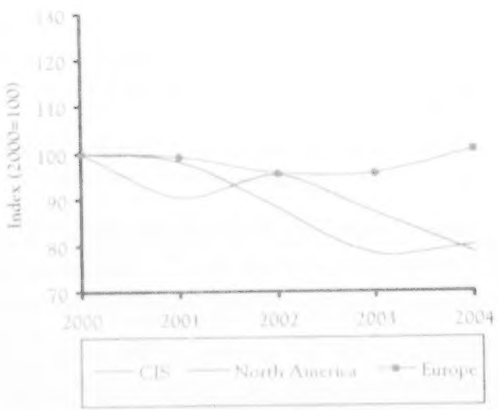
Source: European Federation of the Parquet Industry, 2005.

Total UNECE regional production amounted to 44.1 million m^3, down by 3.6% in 2003 due to an 11% drop in the US, and despite an increase of 5.7% in Europe (EU-25 by 6.7%) because the US accounted for 53% of production against a European 38.3%.

Consumption of sawn hardwood has been steadier in Europe than in North America, where the loss of furniture manufacturing to imported furniture has been greatest, although the staple item of sawn European beech continues to fall in price (graph 6.1.2).

GRAPH 6.1.2

Consumption of sawn hardwood in the UNECE region, 2000-2004



Source: UNECE/FAO TIMBER database, 2005.

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In the US imports are increasing considerably. Total apparent consumption of sawn hardwood in the region decreased by 3% in 2004 as compared with 2003, rising in the new EU-25 by 5.2% and by 2.4% in the CIS, but falling by 9.5% in the US. However hardwood consumption was 88 m^3 per 1,000 inhabitants in North America – with 92 m^3 in the US – compared with 31 m^3 in the EU-25 and 12 m^3 in the CIS.

6.2 Europe subregion

In the EU-25, production of sawn hardwood was led by France with 2.2 million m^3, up 2.9% in 2003, as compared with Germany, which is showing an increase in the estimated lower levels of the previous two years (table 6.2.1). However, outside the EU, the most marked progress was made by Romania, at 1.8 million m^3, up 14.8% over 2003 and 35% up on its production level over 2000. Turkey is the largest hardwood producer in the European subregion at 2.6 million m^3 in 2004. With low sawn hardwood trade volumes, Turkey's production is for the domestic market, and is based on lower grade hardwoods, poplar plantations and imported logs. The European subregion accounted for 38% of production for the entire UNECE region with EU-25 accounting for 25% (table 6.2.2).

Total European exports of sawn hardwood have continued to fall steadily since 2000, with a further reduction of 2.6% in 2004 to 5.2 million m^3. Non-EU countries accounted for almost 28% of all European exports in 2004. The largest exporter is Romania, with Germany, Latvia and France all close behind. German exports had their best year since 2000 and France had its worst export performance, in line with falling production. European imports have also fallen since 2000, although this has levelled off over the last two years. Note that hardwood trade in 2000 was exceptionally high following the December 1999 windstorms in Europe which felled the equivalent of a year's harvest in two days, much of it high value hardwoods.

TABLE 6.2.2

Sawn hardwood balance in Europe, 2003 - 2004

(1,000 m^3)

	2003	2004	Change %
Production	15 348	16 219	5.7
Imports	8 148	8 118	-0.4
Exports	5 285	5 148	-2.6
Net trade	-2 862	-2 971	...
Apparent consumption	18 211	19 190	5.4
Of which: EU-25			
Production	9 734	10 390	6.7
Imports	7 658	7 573	-1.1
Exports	3 860	3 722	-3.6
Net trade	-3 798	-3 851	...
Apparent consumption	13 532	14 241	5.2

Source: UNECE/FAO TIMBER database, 2005.

The years since those storms, which resulted in 140 to 150 million m^3 of damaged timber in France (equivalent to three years' harvest), have seen a continuing downward trend in sawn beech prices, aggravated by several other factors (graph 6.2.1). France has an estimated 2 billion m^3 of standing timber, 61% of which is hardwood, and in which oak is double the volume of beech. Europe's furniture industry, which was a high consumer of beech, is suffering from increasing imports of furniture from Asia. Sawmillers have also lost much of their recently acquired sawn beech market in China,

TABLE 6.2.1

Production of sawn hardwood in Europe, 2000 - 2004

(1,000 m^3)

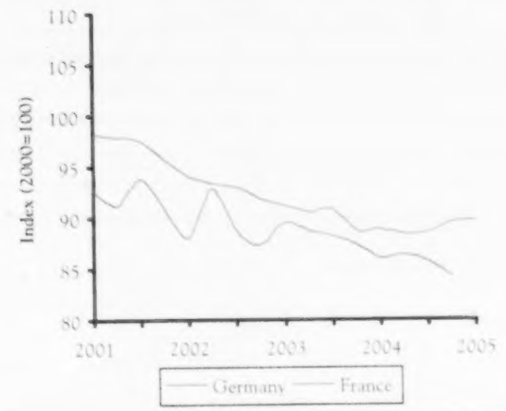
						Change 2003 to 2004	
	2000	*2001*	*2002*	*2003*	*2004*	*Volume*	*%*
Europe	15 736	15 565	15 162	15 348	16 219	871	5.7
of which:							
Turkey	2 410	2 645	2 564	2 629	2 590	-39	-1.5
France	2 968	2 804	2 329	2 099	2 160	61	2.9
Romania	1 319	1 254	1 432	1 550	1 780	230	14.8
Germany	1 320	1 242	1 140	1 071	1 401	330	30.8
Latvia	580	645	848	868	1 100	233	26.8
Spain	960	1 055	843	920	1 000	80	8.7
EU-25	10 454	10 254	9 805	9 734	10 390	656	6.7

Source: UNECE/FAO TIMBER database, 2005.

which now prefers to buy and process logs. Fashion cycles have not aided the beech market, as tropical and darker temperate species have made a degree of comeback.

GRAPH 6.2.1

German and French beech sawnwood prices, 2001-2005

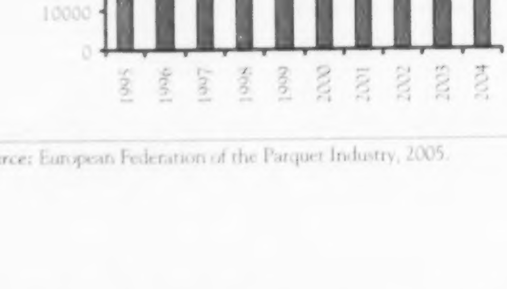


Source: Statistischen Bundesmant Preise and Centre de l'Économie du Bois, 2005.

Total apparent consumption of rough sawn hardwood in all of Europe had remained steady since 2000 and rose slightly in 2004. The EU-25, on the other hand, have seen a gradually falling trend (albeit rising in 2004) due to the transfer of processing eastwards and as imports of semi-finished and component products into the EU have increased. One of the key market drivers in Europe has been hardwood flooring, which continued to grow steadily in 2004 (graph 6.2.2).

GRAPH 6.2.2

European hardwood flooring production, 1995-2004



Source: European Federation of the Parquet Industry, 2005.

6.3 North America subregion

The US accounts for 53% of UNECE region production. Following the peak of 31 million m^3 in 2000, total sawn hardwood production in Canada and the US averaged 29.6 million m^3 from 2000 to 2002, but fell 9.2% in 2003 and a further 10.2% in 2004 (table 6.3.1). Since Canada accounted for only 7.5%, much of which is based on logs and green or unsorted sawnwood from the US, the main production fall has been from the US.

TABLE 6.3.1

Sawn hardwood balance in North America, 2003 - 2004

(1,000 m^3)

	2003	2004	Change %
Production	26 729	24 016	-10.2
Imports	2 999	3 544	18.2
Exports	4 113	4 382	6.5
Net trade	1 114	838	-24.8
Apparent consumption	25 615	23 178	-9.5

Source: UNECE/FAO TIMBER database, 2005.

Exports of US sawn hardwoods are estimated to have risen by 4.8% in 2003 and by 10% in 2004, with China providing significant growth for both domestic consumption and exports of furniture. China's growing domestic economy, and government policy of allowing home ownership, have stimulated pent up demand, especially around major cities, for hardwood furniture, flooring and internal joinery, for which American hardwood species are suitable and increasingly preferred. The forthcoming Olympic Games in Beijing in 2008 are adding to this pressure. There are currently about 11,000 wood processing factories in southern China, many of which employ thousands of workers. Because of domestic harvesting restrictions in the wake of flooding a few years back, China relies on imported timber. China increased US hardwood imports by 39% to 419,431 m^3 in 2004.

US policy to open trade with Viet Nam is affecting the sawn hardwood industry. Viet Nam's wood processing manufacturing capabilities have been developed, in part assisted by investors from Taiwan Province of China. In 2004, Viet Nam increased US hardwood imports by 95% to 49,799 m^3 to supply its exploding furniture manufacturing capacity. The market promotion work by the American Hardwood Export Council and the USDA Foreign Agricultural Service promotes this development. Thus North American exports further increased 6.5% in 2004 to 4.4 million m^3 – the highest level in 5 years. US exports now represent 13.6% of production by volume; whereas Canada with a small consumption exports 76% of production.

US imports rose quite noticeably in the last four years and by 25% in 2004 over the previous year. The major supplier was Canada, with maple, birch and alder accounting for about half, with tropical hardwoods from South America very significant, and with Germany emerging as a supplier of beech.

A major concern of the hardwood industry has been the recent rapid rise of furniture imports into the US, affecting their domestic market balance. Reduced demand for high grade materials for furniture alters the economics for sawmills. They are producing increasing proportions of lower-grade and lower-value packaging and flooring material as log quality is reduced. But to remain profitable, sawmillers need to recover most costs on higher grade materials for joinery and furniture specifications.

6.4 CIS subregion

Production of sawn hardwood in the CIS at 3.8 million m^3, which was up by 5% over 2003, amounts to less than 8% of the total for the UNECE region (table 6.4.1). Three producing countries, Belarus, the Russian Federation and Ukraine, accounted for 98%. Exports in 2004 by Belarus and the Russian Federation represented 26% of total production. Imports of sawn hardwood into the CIS appear to be insignificant and are often tropical for specific applications.

TABLE 6.4.1

Sawn hardwood balance in CIS, 2003 - 2004

(1,000 m^3)

	2003	2004	Change %
Production	3 648	3 828	4.9
Imports	135	137	1.1
Exports	865	986	14.0
Net trade	730	850	16.4
Apparent consumption	2 918	2 979	2.1

Source: UNECE/FAO TIMBER database, 2005.

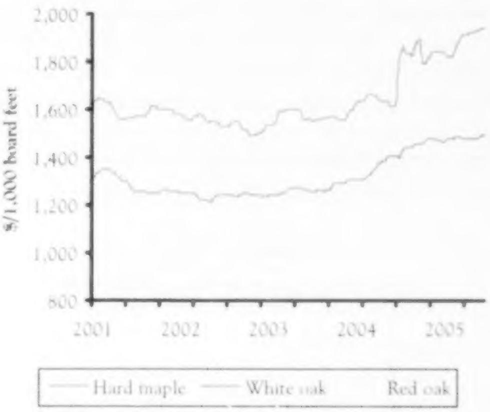
6.5 The 2005 sawn hardwood market

The start of 2005 has already confirmed some of the trends that emerged in 2004. For example, imports of hardwood logs and sawnwood by China are already showing signs of increasing, based on growing domestic demand and re-export of furniture and joinery products. Chinese import of US sawn hardwood was up a further 12% in volume in the first quarter. The current market is giving rise to uneasiness in some sectors. In the US construction sector, kitchen cabinet producers and flooring manufacturers were buoyant in 2004 although flooring production ended up at over-capacity, with commensurate falls in prices and profits reported by the 2005. This was partly due to a sudden rise in flooring imports (up 37% in 2004), which may signal another warning from Asia to American markets.

And with relatively low domestic inventories other than red oak, US sawn hardwood producers were looking towards a strong market again in 2005, but the second quarter has also been disappointing. Red oak prices fell in early 2005, while white oak and hard maple rose with sustained demand (graph 6.5.1). The reality of reduced furniture manufacturing in the US, and also in western Europe, is now regarded as a permanent element in the supply and demand equation. In 2004, according to press reports, 14,500 furniture factory workers lost their jobs when more than 50 US plants closed.

GRAPH 6.5.1

United States sawn hardwood prices, 2001-2005



Source: *Hardwood Review*, 2005.

Currently, a trend away from red oak, which may be a temporary fashion cycle that is not uncommon in hardwood markets, is causing great concern – just as it did in the case of European oak producers in the late 1990s. There could also be some adverse effects on internationally traded hardwood if oil prices start to push up freight rates, of which there are already some signs in 2005.

The UNECE Timber Committee estimate is for production in 2005 to remain static and for apparent consumption to rise fractionally by 0.5%. However, this may depend on the current growth level of 2.2% in the construction industry (forecast at 2.1% in 2005) in Europe and housing starts in the US being maintained. The forecast may also depend on US production, which in turn will depend on fewer furniture factory losses and the continued performance of US exports.

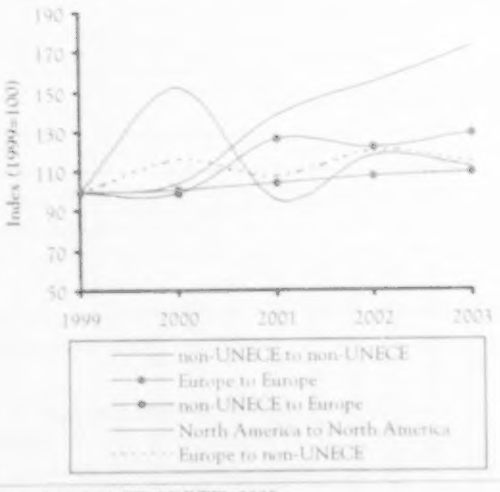
In Europe there have been moves to consolidate the marketing of European hardwoods for export, following the proven model of the American Hardwood Export Council. But the hurdles of differing European grading standards, inspection and training, as well as language and production techniques, may yet have to be worked out.

Concern for the legality of the source of sawn hardwood, and its production by sustainable forest management, moved in 2004 to the public and corporate building arena in Europe, and in North America in the public and private sectors, for example the LEEDS process (Green Building Council). The home improvement/DIY and residential sectors have therefore taken more of a back row seat.

Data for sawn hardwood trade flows in the UNECE region are not available yet for 2004, but some trends shown below are expected to have continued (graph 6.5.2). The positive trade flows outside the UNECE region are for tropical sawnwood exporters to major consumers such as China. Within the region, there were small increases in 2003 trade within Europe which might drop back in 2004 and within North America the 2003 increase could be stronger in 2004. The increasing shipments of further processed sawnwood, either as hardwood dimension (rough, dried, cut-to-size pieces and strips) or semi-finished products, might not be captured in these trade flows, but it is growing in importance.

GRAPH 6.5.2

Sawn hardwood trade flows, 1999-2003



Sources: UN COMTRADE/EFI, 2005.

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World Hardwoods (www.worldhardwoods.com).

Additional statistical tables for this chapter may be found in the electronic annex on the UNECE Timber Committee and FAO European Forestry Commission website at: www.unece.org/trade/timber/mis/fpama.htm

Tables for this chapter include:

- Sawn hardwood apparent consumption, 1999-2004
- Production of sawn hardwood, 1999-2004
- Exports and imports of sawn hardwood, 1999-2004
- Sawn hardwood balance in UNECE, 1999-2003
- Exports and imports of sawn hardwood, 1999-2003
- Major sawn softwood trade flows in UNECE region 1998-2002

Full statistics used in the *Forest Products Annual Market Review, 2004-2005* may be found in the UNECE/FAO TIMBER database at:

www.unece.org/trade/timber/mis/fp-stats.htm#Statistics

Chapter 7

Striking recovery of the panels industry in 2004 – difficult to beat in 2005: Wood-based panels markets, 2004-2005[47]

Highlights

- The particle board industry in Europe recorded a major upswing in 2004, but faces a difficult start in 2005.
- MDF consumption in Europe accelerated by nearly 10% during 2004, with the laminate flooring industry as the key driving force.
- OSB production in Europe continues to expand and benefits from strong North American demand.
- The European plywood industry faces fierce competition from China despite anti-dumping duties of up to 67% on imports of okoumé plywood
- The Russian particle board and MDF industries are developing rapidly and will be characterized by major restructuring over the next few years.
- Prices in Europe rose steadily and prices in North America spiked several times in 2004 before declining to levels that were still well above previous years.
- A strong housing market allowed the North American plywood industry to post a 100% capacity utilization rate.
- Increased imports of cabinets and furniture reduced demand for particle board in the United States.
- OSB production in North America increased by 3% in 2004 and reached a record volume of 23.1 million m^3.
- Strong demand for OSB has resulted in plans to build 10 new mills in North America by 2008.
- Rapid growth of plywood imports from Brazil resulted in the rescission of its duty-free status in the United States and the imposition of an 8% duty in mid-2005.
- Several Chinese plywood manufacturers are expected to receive approval to grade stamp structural plywood by late 2005 or early 2006 and begin exporting to the US.

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[47] By Ms. Eva Janssens, Dr. Nikolai Burdin and Dr. Ivan Eastin

Secretariat introduction

Once again the production of this chapter benefits from close cooperation with three regional experts in the panel sector and their contributors. We sincerely appreciate the continued collaboration of Ms. Eva Janssens,[48] Economic Advisor, European Panel Federation (EPF), who coordinated the production and wrote the European analysis. She is a member of the UNECE/FAO Team of Specialists on Forest Products Markets and Marketing and a regular participant in the annual Timber Committee Market Discussions. She used the EPF *Annual Report* 2005 and its contributors from member panel associations to produce the European section of this chapter, including Mr. Alexander Shalashov,[49] General Director, Scientific Institute of Wood Research (Vniidrev Ltd.).

We are honoured to again have an analysis by Dr. Nikolai Burdin,[50] Director, OAO NIPIEIlesprom, Moscow, who wrote the section on CIS countries. Dr. Burdin is former Chairman of the Timber Committee and the FAO/UNECE Working Party on Forest Economics and Statistics, and a frequent participant in its annual Market Discussions. He is also the statistical correspondent for Russia.

For the first time, we are pleased to welcome to the team Dr. Ivan Eastin,[51] Director, Center for International Trade in Forest Products, University of Washington, who produced the North American analysis. We look forward to continued cooperative efforts.

7.1 Europe subregion

Confirming that 2003 was a turning point, European panel markets reached all time highs in 2004 (table 7.1.1). However, it remains to be seen whether the slow start in 2005 will nevertheless result in another record year. Building further on the recovery that was initiated in the second half of 2003, the particle board industry in Europe picked up vigorously during 2004, reflected by a firm growth rate of 5.6%, bringing overall production to a new record level of over 40 million m³. In particular, the first half of the year proved to be exceptionally dynamic, with production increasing by an average 7%, underpinned by a 9% increase in demand. In addition, exports registered two-digit growth throughout the first nine months of 2004. Moreover, the favourable demand conditions also enabled a sizeable downward stock movement. The top five particle-board-producing countries nearly all registered sound positive growth rates of at least 5%. Particle board consumption rose by 5.4% during 2004 to 36.8 million m³, thereby exceeding the former 2000 record.

TABLE 7.1.1[52]

Wood-based panels balance in Europe, 2003 - 2004

(1,000 m³)

	2003	2004	Change %
Production	60 613	64 150	5.8
Imports	25 851	27 794	7.5
Exports	27 657	29 900	8.1
Net trade	1 806	2 106	16.6
Apparent consumption	58 807	62 044	5.5
Of which: EU-25			
Production	54 424	57 036	4.8
Imports	23 015	24 388	6.0
Exports	25 377	27 245	7.4
Net trade	2 363	2 857	20.9
Apparent consumption	52 062	54 178	4.1

Source: UNECE/FAO TIMBER database, 2005.

Following this exceptional upswing, and despite the optimism among particle board producers, the first months of 2005 proved to be difficult. Demand deteriorated sharply and production contracted by about 4%. Throughout 2004, the particle board industry had been operating with an average capacity utilization rate of more than 90%, fuelled by strong demand, which resulted in a rise in prices (graph 7.1.1). During the first months of 2005, the operating rate fell back to 88%. However, a forecast recovery of the furniture and construction markets is expected to give renewed momentum to demand during the remaining half of 2005, which should lead to a year-end stabilization.

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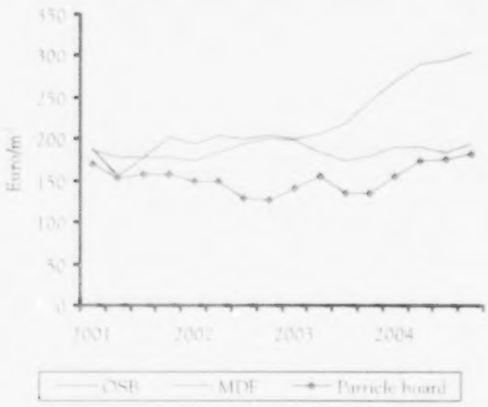
[52] Detailed tables of product and country statistics may be found in the electronic annex at: www.unece.org/trade/timber/docs/fpama/2005/fpama2005.htm.

GRAPH 7.1.1

European OSB, MDF and particle board prices, 2001-2005



Notes: OSB/3 18mm, MDF standard 16-19mm, particle board V100 PF 19mm. Prices from Austria, Germany and Switzerland.

Source: *EUWID Wood Products and Panels*, 2005.

MDF production increased by 7.7% in 2004 to a new record level of 12.3 million m^3. Total demand increased to 9.5 million m^3, driven once more by continued strong growth of the laminate flooring industry, which has become the most important market for MDF in Europe and now accounts for 40% of all sales. For 2005, MDF consumption is expected to grow further, although probably at a slightly slower pace.

The European OSB industry registered the highest growth rates, with production amounting to 2.6 million m^3, which means that the previous record was exceeded by almost 2.6%. For 2005, the OSB production is firmly expected to exceed 3 million m^3. By the end of the year, a new plant will become operational in the Czech Republic, the first new investment since 2001. A striking element during the last months of 2004 and the beginning of 2005 was the soaring exports of OSB to North America.

Despite the positive achievements in 2004, the European wood-based panels industry continues to face some major impediments and the European Panel Federation (EPF) has implemented policies aimed at overcoming these problems. With new CE marking for panels available since 2004, the EPF supports members in implementing the marking for construction panels. The Federation is also in favour of abolishing trade barriers for panel products.

Since the beginning of 2002, wood costs have increased by nearly 20% and accelerated forcefully in the first months of 2005. The strong competition from the bio-energy industry regarding the supply and availability of wood raw material and biomass continues to be one of the key concerns. However, energy costs and also resin costs (50% higher in the first quarter of 2005, compared with the beginning of 2000) have soared in line with record high oil prices.

Plywood production in Europe increased by 4.3% during 2004 to a new record of more than 4.4 million m^3. The especially strong performance of Europe's largest plywood producer, Finland, boosted the overall result. There are some major consumers of plywood that are fully dependent on imports to meet their domestic demand, such as the United Kingdom, the Netherlands, Denmark and Ireland. Plywood consumption in Europe was largely underpinned by major increments in these countries, boosting total demand by 6.2%.

Nevertheless, owing to the great volumes of plywood that are being imported into Europe, the plywood manufacturers are facing strong competitive pressure in their local markets. The most aggressive competitor, who has been disrupting the European markets for four years, is China. Despite the fact that anti-dumping duties on the imports of okoumé plywood from China of up to 66.7% have been in place since November 2004, European plywood manufacturers are still suffering a loss of market share. In addition, even though the imports of officially declared okoumé plywood dropped during 2004, the imports of plywood in general continued to increase rapidly and more than doubled in 2004 as compared with 2003. Since these imports also include inexpensive products, as well as other types of plywood products, increasing numbers of European plywood manufacturers are now affected by these imports. The European Federation of the Plywood Industry therefore decided to launch a study to investigate the impact of imports from non-European regions on the competitiveness of European plywood producers.

7.2 CIS subregion

In the CIS, panel production increased by 12.4% in 2004, with most of the nearly 1 million m^3 increase being exported (including trade within the subregion) (table 7.2.1). Russian particle board production amounted to 3.6 million m^3 during 2004, which means an increase of more than 13% compared with 2003. For 2005, particle board production in Russia is expected to increase moderately by about 5%, while a major upswing by nearly 25% is expected in 2006, when it is forecast that new capacity will boost the total output by more than 1 million m^3, with total production exceeding 4.7 million m^3. Demand has been developing at a rapid pace in Russia. Consumption rose by 20% during 2004 to 4.1 million m^3, compared with less than 3 million m^3 in 2002. For 2005, demand is expected to reach 4.4 million m^3. In the domestic market, the furniture industry consumes between 75% and 80% of the total particle board supply. In the short term, the Russian particle board industry is to undergo major restructuring.

TABLE 7.2.1

Wood-based panels balance in CIS, 2003 - 2004

(1,000 m³)

	2003	2004	Change %
Production	8 290	9 314	12.4
Imports	2 463	2 429	-1.4
Exports	2 317	3 266	41.0
Net trade	-146	838	…
Apparent consumption	8 436	8 477	0.5

Source: UNECE/FAO TIMBER database, 2005.

Since the Russian MDF production of 338,000 m³ in 2004 failed to meet the demand from the furniture industry, the deficit was covered by imports. During 2004, imports increased by 19% to 320,000 m³. The potential domestic demand for MDF is currently estimated at between 600,000 m³ and 700,000 m³. For the 2005 to 2006 period, the MDF industry in Russia is expected by OAO NIPIEIlesprom to boost its production volumes, with an output of nearly 700,000 m³ projected for 2005, accelerating to some 960,000 m³ by the end of 2006. As such, production will be twice as much as the demand, and a gradual reduction of import deliveries can be expected, together with an increase of export-oriented panels.

7.3 North America subregion

In 2004, North American panel markets responded to strengthened demand from construction markets and related interior trim and furnishings, and posted healthy gains in consumption (table 7.3.1).

TABLE 7.3.1

Wood-based panels balance in North America, 2003 - 2004

(1,000 m³)

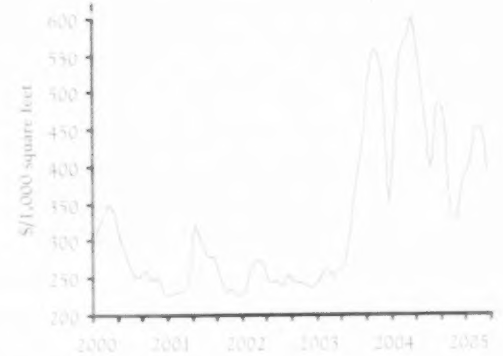
	2003	2004	Change %
Production	58 841	60 677	3.1
Imports	19 467	23 380	20.1
Exports	15 385	16 421	6.7
Net trade	-4 082	-6 959	…
Apparent consumption	62 923	67 636	7.5

Source: UNECE/FAO TIMBER database, 2005.

The major development was the 20% jump in imports, with traditional Canadian trade rising, but with more imports of European, Asian and South American panels as well. Panel prices rose to record levels, but experienced extreme fluctuations, which have continued in 2005 (graph 7.3.1).

GRAPH 7.3.1

Structural panels prices in the United States, 2000-2005

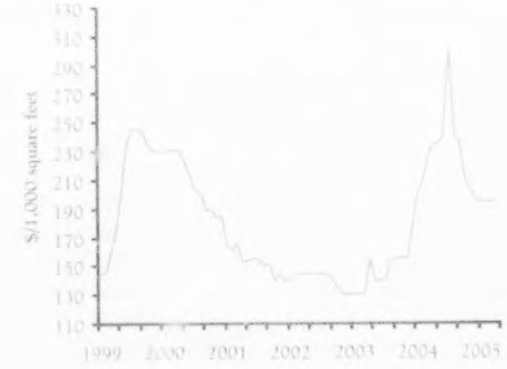


Source: *Random Lengths Yardstick, 2005.*

The North American particle board market continued to stagnate throughout 2004 despite rising prices in the first half of the year. While prices moderated during the second half of the year and into the first quarter of 2005, they still remained relatively strong (graph 7.3.2).

GRAPH 7.3.2

Particle board prices in the United States, 1999-2005



Note: Underlayment grade on a 3/8-inch basis.

Source: *Random Lengths Yardstick, 2005.*

North American particle board consumption in 2004 continued a five-year downward trend, with a further decline projected for 2005. To a large degree, this trend can be traced to an overall decline in demand as imports of lower priced finished products incorporating particle board substrates, particularly cabinets and furniture from China, have increased significantly and displaced domestic production capacity of furniture and thereby of consumption of panels. A slight increase in Canadian particle board production was more than offset by a large drop in US production. This caused total North American production to fall by 1.8% to 9.8 million m^3. Since 2000, US particle board production has declined by 25% to 6.9 million m^3, whereas Canadian production has increased by 17% to 2.9 million m^3. As a result, the Canadian share of production has risen from 21.4% in 2000 to 29.9% in 2004. Both imports and exports of particle board continued declining, extending a three-year trend that began in 2002.

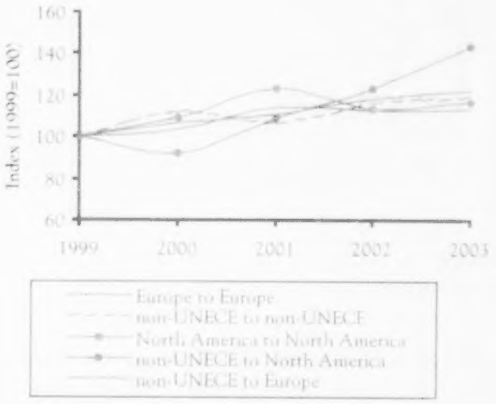
In contrast, North American production of MDF increased substantially. While Canadian MDF production posted a slight decline, US MDF production jumped sharply, increasing by almost one third from 2003. Since 2000, Canadian MDF production has declined by 26% to 932,000 m^3, while US MDF production has increased by 42% to 3.6 million m^3. As a result, the US share of MDF production in North America increased from 66% to 79% between 2000 and 2004. While North American exports of MDF increased by 14% to 1.2 million m^3, imports posted a much larger increase, rising by 23% to 1.9 million m^3. The combination of significant increases in MDF production and imports resulted in a 26% increase in North American consumption.

A strong housing market in the US continued to support strong demand for OSB. Declining mortgage rates continued to support housing starts, which continued a five-year expansion that saw these starts increase from 1.57 million in 2000 to 1.96 million in 2004, contributing to increased consumption of OSB. Canadian OSB production increased by 0.8% to reach 8.8 million m^3, while US OSB production increased by an astounding 4.8% to reach a record volume of 14.3 million m^3. As a result, OSB production in North America increased by 3.2% in 2004, reaching an all-time high of 23.1 million m^3. OSB capacity utilization reached an all-time high of 96% in North America, with Canadian mills reaching 99% and US mills 94%. As a result, manufacturers have announced plans to build 10 new OSB plants by the end of 2007 (4 in the US and 6 in Canada) that would increase North American OSB production capacity by almost 22%.

Trade in OSB, which is primarily from Canada to the US, increased by almost 10%, to reach almost 9 million m^3 in 2004. However, 2004 saw a 14% decline in the volume of OSB imported from Europe (down to 179,000 m^3) as South American imports nearly doubled between 2003-2004 to reach 114,000 m^3. US imports of panels from offshore suppliers continue to dominate the trade flows of the UNECE region (graph 7.3.3).

GRAPH 7.3.3

Wood-based panel trade flows, 1999-2003



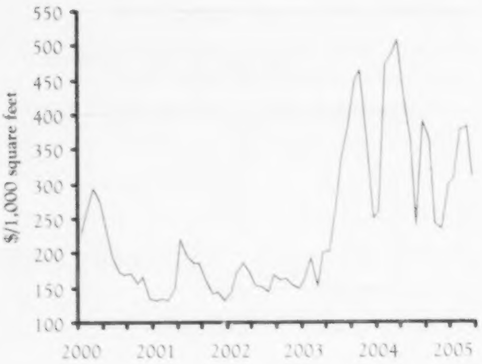
Note: Full trade flow table in the electronic annex.
Source: UN COMTRADE/EFI, 2005.

OSB prices, which increased significantly during the final quarter of 2003 and the first quarter of 2004, moderated during the last half of 2004, although they were substantially higher than the prices observed during the 2001 to 2003 period. However, large price fluctuations continue to plague the industry and pull prices down (graph 7.3.4). Residential construction remains the largest market for OSB, accounting for almost two thirds of OSB consumption and the vast majority of the increase in OSB consumption between 2003 and 2004. Increases in OSB consumption were modest in the renovation and remodelling and industrial market segments and somewhat higher in the non-residential market segment.

The strong housing market over the past five years has proven to be a benefit to the beleaguered North American plywood industry, and has allowed it to register a modest production increase of 1.3%, reaching 17.3 million m^3 in 2004. This increase was due to improved capacity utilization rates as Canadian plywood mills operated at 102% of capacity and US mills increased to 99% of capacity. As a result, Canadian plywood production increased by 6.8% to almost 2.7 million m^3, while US production increased by just 0.4% to hit 14.9 million m^3. While consumption of plywood increased substantially in 2004, North American production gains were moderated by a 44% increase in plywood imports.

GRAPH 7.3.4

OSB prices in the United States, 2000-2005



Note: On a 7/16 inch basis.

Source: *Random Lengths Yardstick*, 2005.

US plywood imports from Brazil almost doubled in 2004. Rapid growth of plywood imports from Brazil resulted in the rescission of its duty-free status in the US and the imposition of an 8% duty in mid-2005. A number of Chinese mills are expected to gain approval to apply a grade stamp to their structural plywood following US standards. They could begin exporting to the US by the end of 2005 or early 2006. In contrast to OSB, the residential construction market for plywood only accounts for 37% of consumption, while the industrial market accounts for an additional 33% of plywood consumption, followed by the repair and remodelling market (21%) and the non-residential market (9%). Similar to OSB prices, strong demand has increased plywood prices, although the plywood industry has also been plagued by substantial price fluctuations.

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Additional statistical tables for this chapter may be found in the electronic annex on the website of the UNECE Timber Committee and FAO European Forestry Commission at: www.unece.org/trade/timber/mis/fpama.htm

Tables for this chapter include:

- Wood-based panels apparent consumption, 2000-2004
- Particle board apparent consumption, 2000-2004
- Plywood apparent consumption, 2000-2004
- Fibreboard apparent consumption, 2000-2004
- Production of plywood, 2000-2004
- Exports and imports of plywood by volume, 2000-2004
- Plywood balance in UNECE, 2000-2004
- Exports and imports of plywood by value, 2000-2004
- Production of particle board (excluding OSB), 2000-2004
- Exports and imports of particle board by volume (excluding OSB), 2000-2004
- Particle board (excluding OSB) balance in UNECE, 2000-2004
- Exports and imports of particle board by value (excluding OSB), 2000-2004
- Production of OSB, 2000-2004
- Exports and imports of OSB by volume, 2000-2004
- OSB balance in UNECE, 2000-2004
- Exports and imports of OSB by value, 2000-2004
- Production of MDF, 2000-2004
- Exports and imports of MDF by volume, 2000-2004
- MDF balance in UNECE, 2000-2004
- Exports and imports of MDF by value, 2000-2004
- Wood-based panels balance in UNECE, 2000-2004
- Wood-based panels trade flows in the UNECE region 1999-2003

Full statistics used in the *Forest Products Annual Market Review, 2004-2005* may be found in the UNECE/FAO TIMBER database at:

www.unece.org/trade/timber/mis/fp-stats.htm#Statistics

Chapter 8

Higher demand and production in 2004, but growth wavers in 2005: Markets for paper, paperboard and woodpulp, 2004-2005[53]

Highlights

- In Europe, production of paper and paperboard increased 4.1% in 2004 to a record 103.1 million m.t., in response to growth in GDP and exports, while pulp output rose 2.4%.
- In North America, production of paper and paperboard increased 3.3% in 2004 to 104.2 million m.t., with a robust increase of 4.1% in the United States and 2.3% in Canada.
- In the CIS, production of paper and paperboard increased 6.6% in 2004 to 8.0 million m.t., while paper and paperboard consumption increased 6.5%.
- The annual growth in apparent consumption of paper and paperboard within the CIS halved between 2003 and 2004, while in North America, growth rebounded over the same period.
- Net exports of paper and paperboard from Europe increased by 34.3% in 2004 to 12.1 million m.t., as exports to Asia rose substantially.
- In Europe, policy issues are related to industry competitiveness, simplification of EU legislation on chemicals and dramatic energy price increases.
- In the CIS, ratification of the Kyoto Protocol by Russia was an important policy development that is fostering industry accountability for greenhouse gas emissions.
- In the United States, a decline in the exchange value of the US dollar in 2003 to 2004, as well as labour productivity gains, helped restore industry competitiveness and profitability.
- Growth rates for US industrial production and advertising expenditures, key determinants of demand in US for paper and paperboard, appear to be lower in 2005 than in 2004.
- A labour strike and lockout halted paper production in Finland for more than six weeks in mid-2005, impacting world markets for products such as coated paper, and creating opportunities for competitors to fill the void.

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[53] By Dr. Peter J. Ince, Prof. Eduard Akim, PhD, Mr. Bernard Lombard and Mr. Tomás Parik.

Secretariat introduction

The secretariat of the UNECE/FAO Timber Branch wishes to thank Dr. Peter Ince,[54] Research Forester, USDA Forest Service, for again coordinating the production of this chapter with his co-authors. Professor Eduard Akim, PhD,[55] The Saint Petersburg State Technological University of Plant Polymers and The All-Russian Research Institute of Pulp and Paper Industry produced the analysis of the Russian pulp and paper sector. Mr. Bernard Lombard,[56] Trade and Competitiveness Director, Confederation of European Paper Industries (CEPI), documented trends among CEPI member countries in Europe. Mr. Tomás Parik[57], Director, Wood and Paper, A.S., wrote about trends in central and eastern Europe.

We also thank Mr. Eric Kilby, Statistics Manager, and Ms. Ariane Crevecoeur, Statistics Assistant, at CEPI, for their work in European data review. CEPI collects data from its member associations, which is the basis for the European analysis. Some differences in definitions exist between CEPI and UNECE/FAO statistics, but although the figures may vary slightly, the trends are generally the same. We thank these contributors for the overview of paper, paperboard and woodpulp developments across the UNECE region.

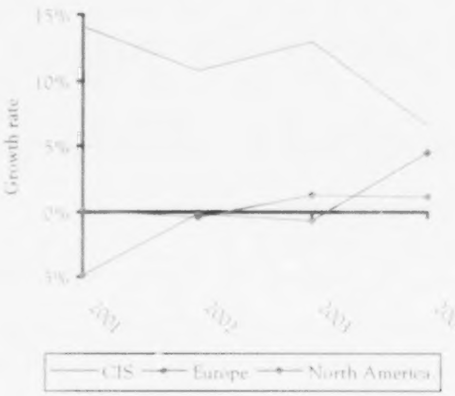
8.1 Global and regional trends

Global pulp, paper and paperboard markets improved in 2004 and 2005, as indicated by generally higher prices for most pulp, paper and paperboard products in comparison with 2003. While growth in demand was quite robust in 2004, by the end of the first half of 2005, markets appeared more hesitant and prices appeared to waver or reach a plateau.

Within the UNECE region, annual growth in consumption of paper and paperboard halved within the CIS subregion (from 12.9% in 2003 to 6.5% in 2004), while growth rebounded in North America (from –0.7% to 4.5%). Thus, there were converging rates of growth in apparent consumption of paper and paperboard for Europe, North America and the CIS subregion (graph 8.1.1).

GRAPH 8.1.1

Rates of growth in apparent consumption of paper and paperboard in the UNECE region, 2001-2004



Source: UNECE/FAO TIMBER database, 2005.

In recent years, growth in paper and paperboard consumption in Europe has been relatively low but fairly steady. In North America consumption declined from 2000 to 2003, but increased in 2004. Meanwhile, in the Russian Federation (and the CIS subregion) and central and eastern Europe, consumption has increased significantly. In 2004, consumption of paper and paperboard expanded in each subregion, with relatively robust growth in North America, while the growth rate was still higher but less divergent in Russia and the CIS subregion. Since 1990, European and North American paper and paperboard production have gradually approached equivalency in total tonnage, with more expansion of production in Europe since 1990 than in North America, while production dropped in the CIS subregion during the early 1990s but has been steadily climbing since then (graph 8.1.2).

The stronger euro and weaker dollar in 2004 limited price appreciation in Europe for pulp and paper commodities. North America, and the US in particular, experienced significant improvement in pulp, paper and paperboard commodity prices in 2004. The improvement in dollar-denominated prices for pulp, paper and paperboard commodities was in part a reflection of continued weakness in the exchange value of the US dollar as well as increased product demand in 2004. Consequently, paper and paperboard production increased in both Europe and North America in 2004, but US producers experienced better gains in profitability than European or Canadian producers in 2004.

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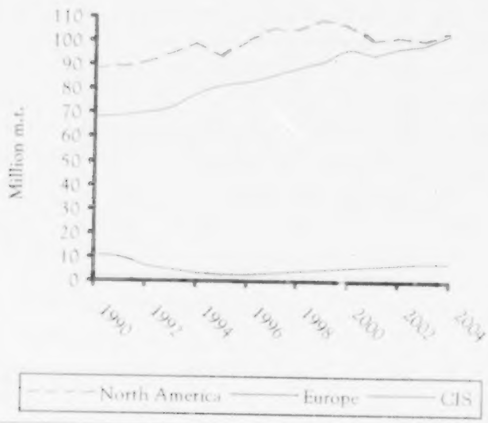
GRAPH 8.1.2

Production of paper and paperboard in the UNECE region, 1990-2004



Source: UNECE/FAO TIMBER database, 2005.

As expected last year, the global upturn and improvement in pulp, paper and paperboard markets continued into 2004 and 2005. In spite of the more hesitant market growth in the first half of 2005 the outlook for the second half of 2005 and 2006 remains positive, though less certain than a year ago.

8.2 Europe subregion

Production of paper and paperboard in Europe reached a record level of 103.1 million m.t in 2004 according to UNECE/FAO data, an increase of 4.1% over 2003. Production among the subset of EU-25 countries was a record 95.9 million m.t. in 2004, an increase of 4.3% (table 8.2.1). Similarly, according to industry data, production of paper and paperboard among member countries of the Confederation of European Paper Industries (CEPI[38]) reached a record level at 99.5 million m.t. in 2004, an increase of 4.5% over 2003. The operating rate (capacity utilization rate) for 2004 was 91.9%.

Overall output of graphic paper increased among CEPI countries by 6.8% in 2004. Half of the increase came from the coated graphics sector (+8.8%). Production of uncoated graphic grades also rose (+5.9%). Mechanical grades (+7.7%) marginally outperformed woodfree grades (+7.2%).

TABLE 8.2.1

Pulp, paper and paperboard balance in Europe, 2003 - 2004

(1,000 m.t.)

	2003	*2004*	*Change %*
Paper and paperboard			
Production	99 043	103 113	4.1
Imports	52 062	53 071	1.9
Exports	61 082	65 181	6.7
Net trade	9 020	12 111	34.3
Apparent consumption	90 023	91 002	1.1
Of which: EU-25			
Production	91 970	95 942	4.3
Imports	48 025	48 946	1.9
Exports	57 143	61 104	6.9
Net trade	9 118	12 158	33.3
Apparent consumption	82 852	83 784	1.1
Woodpulp			
Production	41 694	42 681	2.4
Imports	18 014	18 586	3.2
Exports	11 349	11 579	2.0
Net trade	-6 665	-7 007	...
Apparent consumption	48 359	49 688	2.7
Of which: EU-25			
Production	38 262	39 173	2.4
Imports	16 898	17 490	3.5
Exports	10 443	10 663	2.1
Net trade	-6 455	-6 826	...
Apparent consumption	44 717	45 999	2.9

Source: UNECE/FAO TIMBER database, 2005.

For the packaging sector, production increased by 2.4%. Case material and carton board production rose respectively by 2.4% and 2.3%. Production of wrappings returned to the 2002 level (+3.4%). Hygienic paper manufacturers increased output by 2.1%. Production of industrial and speciality grades rose by 1.8%.

Apparent consumption of paper and paperboard among CEPI member countries totalled 88.2 million m.t. in 2004, an increase of 2.4% compared with 2003. This increase in consumption slightly exceeded the growth in GDP of 2.2% in those countries. Growth in European consumption of many graphic paper grades exceeded GDP growth. Consumption of graphic paper grades increased overall by 2.9%. After a decline in 2003, consumption of newsprint increased by 2.7% in 2004. Consumption of uncoated mechanical grades rose by 3.1%. Growth in demand for coated mechanical grades increased by 6.5% and for coated woodfree grades by 0.9%. Consumption of uncoated woodfree grades rose by 2%. Overall demand for coated grades rose by 3.4%, with uncoated grades rising by 2.4%.

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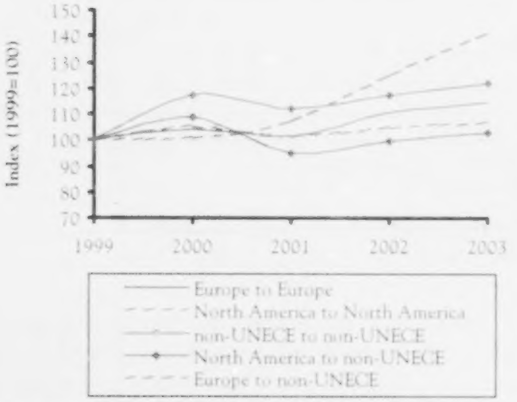
[38] CEPI countries include: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, The Netherlands and the UK.

Overall demand for packaging grades rose by 1.7%. Amongst the packaging grades, consumption of case materials increased by 2% and carton board rose by 2.3%. Demand for wrappings increased by 0.8%. Demand for sanitary and household grades grew by 5.1% to 6.7 million m.t.

In 2004, despite the relatively strong euro, exports of paper and paperboard from CEPI member countries increased by a robust 13.2% to 14.8 million m.t., reflecting the general growth in European exports (graph 8.2.1). Shipments to Asian markets accounted for 36% of exports. Exports to "Non-CEPI" Europe rose by 17.3% and to North America by 5.2%. Exports to Latin America topped 1 million m.t. for the first time. For the fourth consecutive year, imports of paper and paperboard into CEPI member countries fell, in 2004 to 4.2 million m.t., a decrease of 5.1% from 2003. Overall CEPI member countries had a positive trade balance in paper and paperboard of 10.5 million m.t. in 2004.

GRAPH 8.2.1

Paper and paperboard trade flows, 1999-2003



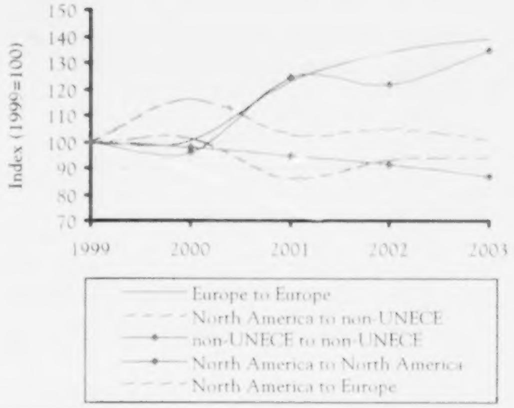
Note: Full trade flow table in the electronic annex.

Source: UN COMTRADE/EFI, 2005.

Total pulp output, both integrated and market pulp, reached 42.7 million m.t. among CEPI member countries, an increase of 4.2% over 2003. Production of chemical pulp increased by 4.2% and production of mechanical and semi-chemical pulp rose by 3.9%. Market pulp production reached 13.1 million m.t., rising by 1.3 % over 2003. European pulp exports remained strong in the face of increased global competition (graph 8.2.2).

GRAPH 8.2.2

Woodpulp trade flows, 1999-2003



Note: Full trade flow table in the electronic annex.

Source: UN COMTRADE/EFI, 2005.

Utilization of recovered paper increased by 4% over 2003 to 46.5 million m.t. Apparent collection (domestic utilization plus export) increased by 7.5% to 51.5 million m.t. Exports of recovered paper to CEPI non-member countries reached 5.9 million m.t., 92% to Asian markets.

The production of paper and paperboard among CEPI member countries during the first quarter of 2005 increased by 1.7% over the first quarter of 2004: pulp production increased by 1.5% over the same period.

While the European industry has continued to increase exports of paper and paperboard, it nevertheless faced challenges in maintaining global competitiveness in 2004 and 2005. The increase in the exchange value of the euro from 2003 to 2004 eroded production cost advantages and the benefits of dollar-denominated price increases. European companies also reported that their competitiveness was severely hit during the last couple of years by the dramatic increases in electricity prices. In particular, this was reported to be a possible indirect effect of the forthcoming Emissions Trading Scheme and a dysfunction in electricity and gas markets, which recent market liberalization has not fully corrected.

The European paper industry has expressed concern about the proposal by the European Commission for a New Chemicals Policy (REACH), which has been developed with the main objective of safe use of man-made products from the chemical industry. However, as currently presented, it could potentially cover not only chemicals, but also the paper industry's raw materials.

A labour strike and lockout halted pulp and paper production in Finland for more than six weeks in May and June of 2005, impacting global markets for products such as coated printing paper, for which Finland is a leading exporter. The dispute was settled in early July, but an estimated 1.4 million tons of graphic paper output was lost during the lockout [*Pulp & Paper Week, 27(25)*]. The reduction in supply squeezed the global market for printing paper just as it was entering the normally busy season for commercial printing. The lockout had significant ramifications for European paper markets since Finland accounts for a large share of European paper and paperboard production in many product grades (e.g. in 2004, 20% of graphic paper production, 32% of mechanical woodpulp output, and 28% of chemical woodpulp production). The impact on pulp production in turn caused the closure of some European sawmills that were unable to find adequate markets for the woodchips that the pulp producers would normally take.

Developments in central and eastern Europe in 2004 followed trends observed among new EU member countries in recent years. Membership of the EU and the opening of borders has resulted in strong economic development as well as structural changes, such as a change in the flow of goods in many sectors. The pulp and paper industry in this region was already linked to global market channels since producers in the region are connected to global enterprises. Strong economic growth has also brought a strengthening of local currencies, which pushes producers in all export-oriented industries to increase productivity, including the pulp and paper industry.

New EU member countries are still considered as good opportunities for investment, and some new projects are being considered in the pulp and paper sector. Availability of raw material, cost advantages and stable economic conditions provide investors with a good business environment. Local governments are supporting new investments while the unemployment rate in certain regions is relatively high due to restructuring of the economy and industry in general. Long-term sustainable management of local forest resources will help attract new investment in the forest industry, with benefits for other sectors.

Policies influencing paper and paperboard market development arise in several areas that influence business on a daily basis. For example, transportation policy is becoming a key issue for business development. Central and eastern Europe need to catch up relatively quickly in the quality of their industrial infrastructures. Rapid ongoing development of industry is also increasing pressure and demand for better infrastructure, especially for transport. Truck transportation is one of the main concerns of local communities as increasing transport of goods creates pressures on infrastructure costs, the environment and safety.

Bio-energy production continues to be viewed as one of the biggest threats, as well as an opportunity, for the pulp and paper industry. The market has yet to establish the balance between wood energy and fibre use, while subsidies and support for bio-energy vary from country to country. There is, however, already some evidence of a negative influence on wood availability for the particleboard and the pulp and paper industries. Prices of raw materials are higher in certain regions than those industries are able to pay due to the strong energy subsidy policies of some local governments. There is a great opportunity to expand wood availability and mobilization for green energy production that does not compete with sustainable wood industries for their raw materials.

The pulp and paper industry has a future and continues to grow in central and eastern Europe and among new EU member countries. If new policies of the EU community and local governments respect the mutual interests of all stakeholders and support sustainable development and global competitiveness, there will also likely be a good future for the pulp and paper industry in this region.

8.3 CIS subregion

In 2004 and the first half of 2005, Russia continued to experience robust economic growth, and the growth in paper and paperboard output (6.8% in 2004) contributed to 6.6% growth in output in the CIS subregion, where Russia is by far the largest producer (table 8.3.1).

TABLE 8.3.1

Pulp, paper and paperboard balance in CIS, 2003 - 2004

(1,000 m.t.)

	2003	*2004*	*Change %*
Paper and paperboard			
Production	7 498	7 994	6.6
Imports	1 631	1 820	11.6
Exports	2 695	2 959	9.8
Net trade	1 065	1 139	7.0
Apparent consumption	6 434	6 855	6.5
Woodpulp			
Production	6 851	6 973	1.8
Imports	178	160	-10.1
Exports	1 917	1 868	-2.6
Net trade	1 739	1 708	-1.8
Apparent consumption	5 111	5 265	3.0

Source: UNECE/FAO TIMBER database, 2005.

Russia's GDP also increased by 7% in 2004. For the first five months of 2005, Russia's GDP growth ran at 5.4%, indicating a modest slowdown but continued growth. President Putin has set a target of doubling Russia's GDP over the next decade, implying an average growth rate of around 7% per year (IEA, 2004). Growth averaged 6.7% from 1998 to 2003. Forecasts of economic growth in Russia vary, influenced mainly by oil price trends, but forecasts generally point to continued economic growth, and thus continued long-run growth in Russia's pulp and paper sector is expected (see chapter 3 for more economic trends).

Important forest sector policy issues of 2004 in Russia were the Kyoto Protocol ratification (which took effect in February 2005 with new efforts to monitor carbon emissions), debates about private ownership of forests in the context of a new Forest Code to be adopted, use of space satellite monitoring for preventing illegal timber cuttings, and the continuing "forest wars" (legal disputes over ownership and management of certain Russian pulp mills and forest operations).

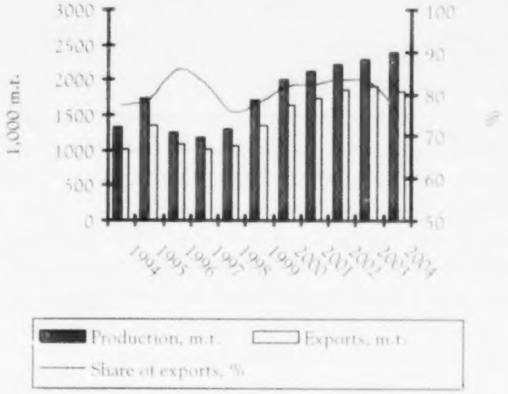
Owing to the major currency revaluation of 1998 and expansionary macroeconomic policy under President Putin since 1999, there has been a continuous increase in output of pulp, paper and paperboard, more than doubling since 1996, although output has yet to reach previous record levels of 1988-1989 pre-transition periods. During 2004, Russia's output of pulp (for paper and paperboard, and market pulp) increased by 2.6% over 2003, output of market pulp increased by 4.0%, and output of paper and paperboard increased by 6.8%, with a 9.0% increase in output of paperboard.

The pulp and paper market situation in Russia definitely appeared to have weakened by the first half of 2005 as the production of a number of pulp and paper products suffered some setbacks by May of 2005. The slowdown of growth for pulp and paper output in Russia coincided with global wavering of pulp and paper demand and prices in the second quarter of 2005. With more than one third of Russia's paper and paperboard production exported, there is strong correlation between global market trends and domestic market trends in Russia.

In 2004, exports of paper products continued to increase to a record level, while pulp exports declined slightly (graphs 8.3.1 and 8.3.2). However, Russian exports as a percentage of production have remained largely unchanged since 1996, with exports comprising about 80% of output for market pulp, and around 40% for paper and paperboard. Major export destinations for these Russian products are China (market pulp, kraft linerboard), Ireland (market pulp, kraft linerboard), India (newsprint), and Turkey (newsprint).

GRAPH 8.3.1

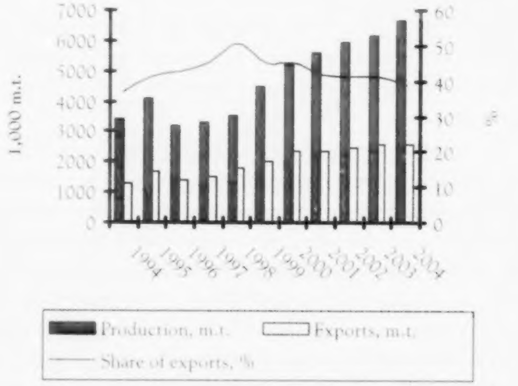
Russian production and exports of market pulp, 1994-2004



Sources: Goscomstat, PPB Express and author's data interpretation, 2005.

GRAPH 8.3.2

Russian production and exports of paper and paperboard, 1994-2004



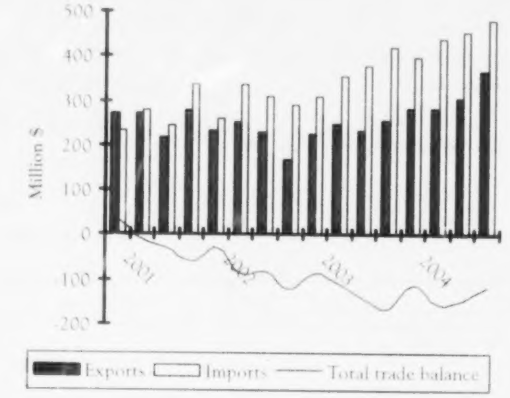
Sources: Goscomstat, PPB-express and author's data interpretation, 2005.

Although the tonnage of Russian paper and paperboard exports greatly exceeds the tonnage of imports, the trade balance in value has continued to deteriorate, as Russia has expanded imports of higher value paper products. The trade deficit in paper and paperboard has been negative since 2001, and in 2004 it was over one-$500 million (graph 8.3.3).

The higher value of imports of paper and paperboard as compared with exports reflects that Russia imports expensive products, such as high quality materials for container and packaging, clay-coated paper, and tissue, and exports less expensive commodity products, such as newsprint and kraft linerboard.

GRAPH 8.3.3

Russian paper and paperboard imports, exports and trade balance, 2001-2004



Sources: State customs committee, PPB Express, PPB Exports, PPB Imports and author's data interpretation, 2005.

In connection with ratification of the Kyoto Protocol, a number of mills (the Arkhangelsky pulp and paper mill, for example) initiated an inventory of greenhouse gas emissions. Such accounting for carbon and greenhouse gas emissions is being done at the Arkhangelsky mill and elsewhere to prepare for limits on emissions and perhaps trading in carbon emissions. The vast majority of analyses on the topic find that Russia will gain a large net surplus of emissions allowances—in the range of 300 to 1,000 MtCO^2 per year, on average, between 2008 and 2012 (Haites 2004). Thus, according to these studies, Russia will not lose, but will in fact gain financially from the Kyoto Protocol, by selling part of its excess allowances to Europe (Lecocq 2004).

The so-called "forest wars" (a journalistic term for legal disputes among managers and owners of forest enterprises) continued in 2004. The Kotlassky pulp and paper mill and the Bratsky pulp and paper mill were both the objects of disputes. Those disputes were settled in 2004 and the mills have become the property of the Ilim Pulp Enterprise. At the same time, the Basic Element Company was involved in a struggle for possession of two other mills, the Arkhangelsky pulp and paper mill and OAO Volga – the Balakhninsky pulp and paper mill. In past years such disputes have involved the occupation of plants by armed guards (hence the term "forest wars"), but more civil legal proceedings now characterize the resolution of such disputes.

8.4 North America subregion

In North America, output of paper and paperboard increased by 3.3% in 2004 to 104.2 million m.t., while apparent consumption of paper and paperboard increased by 4.5% to 101.1 million m.t. (table 8.4.1). Production of woodpulp increased by 1.7% to 80.7 million m.t.

TABLE 8.4.1

Pulp, paper and paperboard balance in North America, 2003 - 2004

(1,000 m.t.)

	2003	*2004*	*Change %*
Paper and paperboard			
Production	100 832	104 190	3.3
Imports	19 505	21 152	8.4
Exports	23 611	24 285	2.9
Net trade	4 106	3 133	-23.7
Apparent consumption	96 726	101 057	4.5
Woodpulp			
Production	79 401	80 725	1.7
Imports	6 546	6 547	0.0
Exports	16 821	17 150	2.0
Net trade	10 275	10 603	3.2
Apparent consumption	69 126	70 122	1.4

Source: UNECE/FAO TIMBER database, 2005.

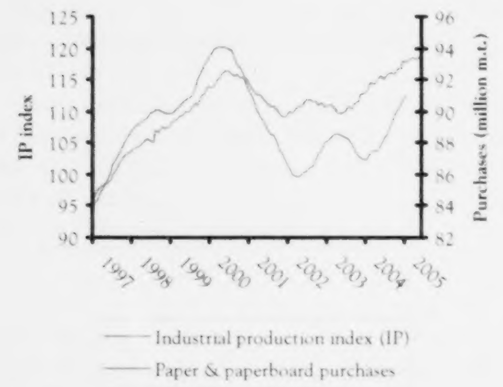
In the US, growth in paper and paperboard output finally resumed after several years of decline, with robust economic expansion in the second half of 2003 and expansion continuing through 2004. An upturn in US industrial output from the second half of 2003 through 2004 stimulated increased domestic demand for paper and paperboard (in packaging and print advertising). The upturn in US paper and paperboard output, as well as overall industrial output, was supported by depreciation in the exchange value of the US dollar during 2004, which boosted profitability for US manufacturers in general, and also for the US pulp and paper industry.

Canada also experienced growth in paper and paperboard production in 2004, partly reflecting growth in US demand for Canadian exports and also reflecting growth in Canadian exports to other countries, particularly exports to Asia. The volume and value of Canadian exports to the US in 2004 were offset by the appreciation of the Canadian dollar against the US dollar. Thus, compared with the robust increase of 4.1% in US paper and paperboard production (and the 4.0% increase in US purchases of paper and paperboard), Canadian production increased by just 2.3% in 2004.

In recent years, trends in domestic purchases of paper and paperboard in the US have generally followed trends in overall US industrial production (graph 8.4.1). US paper and paperboard purchases generally spiralled downward from 2000 to 2002 along with industrial production, reflecting the close connection between the demand for packaging paper and paperboard in industry, and the demand for printing paper for industry advertising and business communication (catalogues, brochures, etc.). The graph also shows that both US industrial production and production of paper and paperboard have climbed since 2002, with robust growth in 2004.

GRAPH 8.4.1

United States industrial production index and purchases of paper and paperboard, 1997-2005



Note: Monthly data. Purchases on a year to date annual basis.

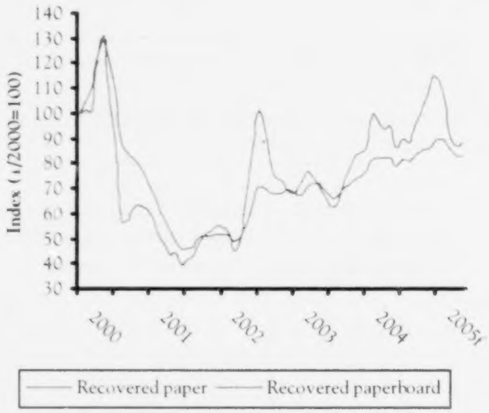
Sources: US Federal Reserve and American Forest & Paper Association, 2005.

Higher orders and production volumes offset lower average prices for paper and paperboard in the first quarter of 2004, when prices bottomed out, followed in the second quarter by announced price increases for key pulp, paper and paperboard grades. Advertising expenditures and demand for packaging both rebounded in the first half of the year. Growth in total US advertising expenditures, an important indicator of printing paper demand, increased by 7.4% in 2004 (the best rate of growth since 2000), although advertising expenditures are expected to increase by only 5.7% in 2005 (AdAge.com, 2005). Export markets also improved in 2004 as a weaker dollar afforded improved cost competitiveness for US producers. North American pulp, paper and paperboard prices, denominated in US dollars, generally increased in 2004.

Prices for fibre inputs have also shown signs of recovery and increase in North America over the past few years. Upward trends are apparent in the nationwide US price indexes for recovered paper in general, and for old corrugated containers in particular (graph 8.4.2). The recent increases in recovered paper prices stem, in part, from the upturn in North American paper and paperboard output (with increased demand for recycled fibre), and also from substantial increases in export demand for recovered paper, particularly from China. The US exported 12.8 million m.t. of recovered paper in 2004, 8.6 million of which was exported to the Far East and Oceania (AF&PA, 2005).

GRAPH 8.4.2

Recovered paper and paperboard prices in the United States, 2000-2005



Note: f = forecast for February – May 2005.

Source: US Bureau of Labor Statistics, Producer Price Indexes, 2005.

In contrast to robust growth in 2004, US demand and prices for pulp, paper and paperboard wavered somewhat in the first half of 2005, as the US dollar regained some strength versus the euro and as overall US industrial production and advertising expenditures began to experience slower growth. It also appears that the slowdown of growth in US paper and paperboard markets in 2005 might reflect a similar cyclical slowdown of growth in overall US industrial production following the robust growth of 2004.

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Additional statistical tables for this chapter may be found in the electronic annex on the UNECE Timber Committee and FAO European Forestry Commission website at: www.unece.org/trade/timber/mis/fpama.htm

Tables for this chapter include:

- Chemical woodpulp apparent consumption, 2000-2004
- Paper and paperboard apparent consumption, 2000-2004
- Graphic papers apparent consumption, 2000-2004
- Sanitary and household papers apparent consumption, 2000-2004
- Packaging materials apparent consumption, 2000-2004
- Production of chemical woodpulp, 2000-2004
- Exports and imports of chemical woodpulp by volume, 2000-2004
- Chemical woodpulp balance in UNECE, 2000-2004
- Exports and imports of chemical woodpulp by value, 2000-2004
- Production of mechanical woodpulp, 2000-2004
- Exports and imports of mechanical woodpulp by volume, 2000-2004
- Mechanical woodpulp balance in UNECE, 2000-2004
- Exports and imports of mechanical woodpulp by value, 2000-2004
- Production of graphic paper, 2000-2004
- Exports and imports of graphic paper by volume, 2000-2004
- Graphic paper balance in UNECE, 2000-2004
- Exports and imports of graphic paper by value, 2000-2004
- Production of packaging paper, 2000-2004
- Exports and imports of packaging paper by volume, 2000-2004
- Packaging paper balance in UNECE, 2000-2004
- Exports and imports of packaging paper by value, 2000-2004
- Wood pulp balance in UNECE, 2000-2004
- Paper and paperboard balance in UNECE, 2000-2004
- Major paper trade flows in the UNECE region 1999-2003
- Major woodpulp trade flows in UNECE region 1999-2003

Full statistics used in the *Forest Products Annual Market Review, 2004-2005* may be found in the UNECE/FAO TIMBER database at:

www.unece.org/trade/timber/mis/fp-stats.htm#Statistics

Chapter 9

Western Europe certifies 50%, and North America 30%, of their forests: Certified forest products markets, 2004-2005[59]

Highlights

- Certified forest area increased by more than one third during the last year, to 241 million hectares, mainly due to an increase in Canada by the Canadian Standards Association scheme.
- In 2005, 60% of the world's certified forest area is located in North America, and 36% in western Europe.
- The potential roundwood supply from certified forests is estimated at 22% of global industrial roundwood production; however, only a small share of products from certified origins bear a label.
- Chain-of-custody (CoC) certificates increased by about one third, reaching 6,000 certificates worldwide, issued by the Programme for the Endorsement of Forest Certification Schemes (PEFC) and the Forest Stewardship Council (FSC).
- China now has the fourth highest volume of CoCs outside the UNECE region, and is producing some certified forest products (CFPs), mainly for export markets in North America and Europe, rather than for its domestic market.
- No price premium exists for CFPs in most markets; however, certified products have become more visible in the marketplace, driven by large do-it-yourself (DIY) and international paper companies.
- Active demand by private end-consumers remains a minor factor for CFPs and its absence is an obstacle to market growth, but negative consumer perception about forests keeps the companies in the sector under pressure to act.
- More public procurement policies with regard to legally harvested and sustainably produced wood are developing in Europe, are increasingly a driving force for certification and an important source of demand for CFPs
- Illegal logging dominates governmental political discussions related to forest products because it causes damage to companies acting legally and is a major cause of tropical deforestation.
- Certification of short-term forestry plantations for bioenergy production in the southern hemisphere might play a role under the clean development mechanism of the Kyoto Protocol.
- Mutual recognition between the FSC and the PEFC is not expected; however, the other major schemes in the UNECE region have established mutual recognition agreements with PEFC.

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[59] By Mr. Florian Kraxner and Dr. Ewald Rametsteiner.

Secretariat introduction

Certified forest product (CFP) markets and certification of sustainable forest management are receiving more international attention as Governments develop policies on forest law enforcement and governance issues. Forest products traders use certification as a means to assure customers of the sustainable source of wood products.

The UNECE Timber Committee has a mandate to monitor the markets for CFPs, and the FAO European Forestry Commission follows developments in the certification of sustainable forest management. This chapter focuses on the market aspects, although it begins by discussing supply. At its annual market discussions, the Timber Committee addresses issues related to CFPs. The Committee has called certification a communications tool to bring the message about the UNECE region's sustainable forest management from producers to consumers.

The basis for the information in this chapter is not the UNECE/FAO TIMBER database of country-supplied statistics, as in the previous chapters. No official statistics exist on CFPs because they are not currently recognized in customs classification codes. Instead, this analysis is based upon other sources, including responses from a survey of the UNECE Timber Committee and FAO European Forestry Commission's Network of Country Correspondents on Certification of Sustainable Forest Management and Certified Forest Products Markets in the UNECE region.

In addition, the authors interviewed key producers, retailers of CFPs, Global Forest and Trade Networks and auditing bodies and certification systems. The secretariat thanks all those who responded to the authors' surveys. Unless otherwise attributed, all estimates and opinions in this chapter are from the authors' interpretations and analysis of the results of these surveys.

We sincerely appreciate the ongoing collaboration with Mr. Florian Kraxner[60], who again led the production of this chapter, and Dr. Ewald Rametsteiner[61], both Experts on CFP markets, of the International Institute for Applied Systems Analysis in Laxenburg, Austria. Their up-to-date and informative analysis of the markets for CFPs provide valuable insight into this market segment.

The Committee and the Commission have followed certification issues in a series of UNECE/FAO *Geneva Timber and Forest Discussion Papers* which are found on their certification website.[62]

9.1 Introduction

This year's discussion of CFPs analyses supply and demand, and concludes with a series of policy issues linked to certification. CFPs bear labels demonstrating, in a manner verifiable by independent bodies, that they come from forests that meet standards for sustainable forest management (SFM). Consumers might find labels on furniture, while the timber trade can verify the sources through the certification scheme's chain-of-custody (CoC) procedures. Forests which are not independently certified and their products, and process certification schemes such as ISO 14001, are not included in this analysis.

9.2 Supply of CFPs

As of May 2005, the total area of forests certified worldwide is approximately 241 million hectares, or about 6.2% of the world's forests (3.9 billion hectares, FAO 2005). This is an increase of more than one third since 2004 (graph 9.2.1). This figure counts forest areas approved by two different certification systems only once. Approximately 0.8 million hectares in Canada and some 1.5 million hectares in Europe, mostly in Sweden, are double certified.

Since 2000 the certified forest area has seen an exponential annual increase, mainly due to certification by:

- Forest Stewardship Council (FSC);
- Programme for the Endorsement of Forest Certification Schemes (PEFC), formerly known as the Pan European Forest Certification System;
- Canadian Standards Association (CSA) system;
- Sustainable Forestry Initiative (SFI) in North America; and
- American Tree Farm System (ATFS) in the US.

In addition, the international Dutch Keurhout system has approved about 1.5 million hectares of independently-certified forests in Gabon.

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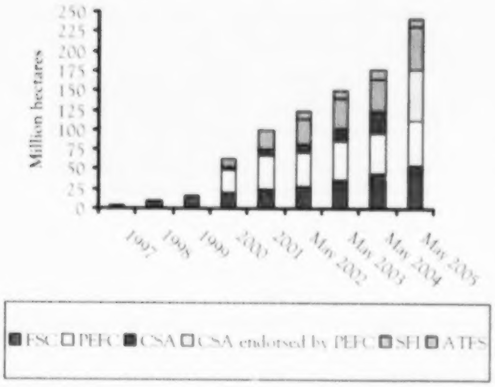
[62] www.unece.org/trade/timber/mis/cfp.htm

GRAPH 9.2.1

Certified forest area in the UNECE region, 1997-2005



Notes: This graph shows all forests certified by major third party certification schemes listed below. As approximately 1.5 million hectares have been certified by more than one scheme, these are not deducted from one or the other scheme. The graph therefore shows a higher amount of total forest area certified than there exists in reality.

FSC = Forest Stewardship Council; PEFC = Programme for the Endorsement of Forest Certification schemes; CSA = Canadian Standards Association system; SFI = Sustainable Forestry Initiative; ATFS = American Tree Farm System.

Sources: Individual certification systems, country correspondents and Canadian Sustainable Forestry Certification Coalition, 2005.

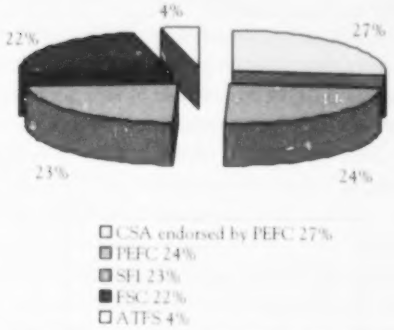
The certified forest area endorsed by CSA in Canada has more than doubled over the last year. Likewise, the area certified by SFI, the second major scheme in North America, has grown faster than in previous years. The rate of increase in the forest area certified by both FSC and PEFC has been steady throughout the last years, while the forest area approved by ATFS in the US has slightly decreased year on year.

In terms of share of certified forest area, CSA now has a slightly dominant position, with 27% of total area certified, ahead of PEFC (24%), SFI (23%) and followed by FSC, with 22%. Among the major schemes, ATFS has the smallest market share, with some 4% in May 2005. As the CSA scheme was endorsed by PEFC in early 2005 allowing CSA-certified companies to use the PEFC label on their certified forest products, the market share of PEFC together with the endorsed CSA scheme is currently at 51% (graph 9.2.2).

In western Europe, approximately half of the total forest area is certified, compared to about one third in North America (Canada and US). In European states outside the EU/EFTA and CIS countries, approximately 1% of the forest area is certified, as is the case in Africa as well. Latin America and Asia are still far below 0.5% of total forest area to be certified (graph 9.2.3 and table 9.2.1).

GRAPH 9.2.2

Share of certified area by major schemes, 2005

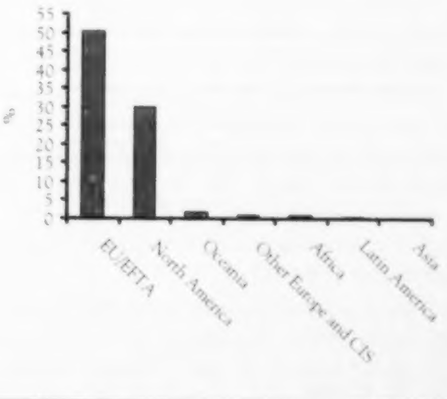


Note: If a forest area has not been certified to more than one standard, the respective area has been counted to each of certifying schemes involved; hence the grand total of certified forest area in this graph shows a higher amount (approximately 1.5 million hectares more) than exists in reality. As of mid-2005.

Sources: Individual certification systems, Forest Certification Watch and Canadian Sustainable Forestry Certification Collation, 2005.

GRAPH 9.2.3

Certified forest as a percentage of total forest area, by regions, 2005



Notes: The reference area is based on FAO's State of the World's Forest 2005 data for forest area, excluding other wooded land (North America including Canada and US only).

Sources: Individual certification systems, Forest Certification Watch, Canadian Sustainable Certification Collation and FAO, 2005.

Similar to previous years, the country charts are dominated by North America (graph 9.2.4). Canada has almost tripled its certified forest area (104.5 million ha) since 2003, while the US at least doubled its certified area

TABLE 9.2.1

Percentage of forest area certified by regions, 2005

Region	*Total forest area (million ha)*	*Total certified forest area (million ha)*	*% of total forest area certified*	*Estimated industrial roundwood produced from certified forest (million m³)*	*Estimated % of global industrial roundwood from certified forests*
North America	470.6	140.2	29.8	180.6	11.38
EU/EFTA	155.5	78.5	50.5	160.1	10.09
Other Europe and CIS	907.4	8.8	1.0	1.6	0.10
Oceania	197.6	3.4	1.7	0.9	0.05
Africa	649.9	6.2	1.0	0.7	0.04
Latin America	964.4	2.3	0.2	0.4	0.03
Asia	524.1	0.8	0.2	0.4	0.02
World total	3869.5	240.2	6.2	344.6	21.71

Notes: The reference for forest area (excluding other wooded land) and estimations for the industrial roundwood production from certified forests are based on FAO's *State of the World's Forest 2005* data. For the roundwood production the regions' annual roundwood production from forests available for wood supply are multiplied by the percentage of the regions' certified forest area. (i.e. it is assumed that the removals of industrial roundwood from each hectare from certified forests is the same as the average for all forest available for wood supply

Sources: Individual certification systems, Forest Certification Watch, Canadian Sustainable Forestry Certification Coalition, FAO and author's compilation, 2005.

(35.7 million ha). Other countries did not increase their certified forest area significantly. The largest certified forests outside the UNECE region are located in Brazil, Bolivia, South Africa and Gabon (all accounting for up to 3 million hectares of independently certified forest area).

The first forest area in China has been certified. FSC certified 420,000 hectares which will enable sustainable harvesting levels. China instituted a logging ban after severe flooding, due in part to overcut watersheds, which escalated imports of industrial roundwood from tropical and temperate sources.

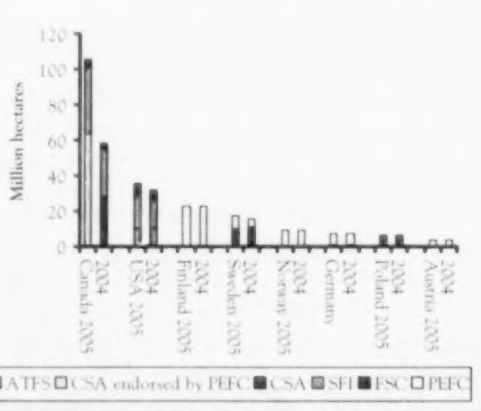
In March 2005 the US Department of Agriculture, Forest Service also announced that forest certification systems would be tested on six of the forests in the National Forest System. Up to this point leading environmental organizations, as well as the FSC, had opposed any consideration of certification of federally managed forests in the US.

One result of the tripling of the certified forest area in Canada since 2003 is that almost 95% of all certified forest is now located in the northern hemisphere. Approximately 58% of the present global total certified forest area is found in North America. Approximately 36% is in Europe, with a decreasing trend in relative figures. Latin America accounts for approximately 4% of the total certified forest area, while Oceania and Asia contain only 1% and 0.3% respectively (graph 9.2.5).

The potential roundwood supply from the world's certified forests in 2005 is estimated at approximately 345 million m³, which represents an increase of about 13% over 2004 (again table 9.2.1). This amount equates to 22% of the world's production of industrial roundwood, or about 37% of the industrial roundwood production of Europe (without the CIS) and North America, where 95% of certified forests are situated. For the roundwood production from certified forest area the regions' average annual removals on forests available for wood supply are multiplied by the percentage of the regions' certified forest area. According to the UNECE/FAO definition, roundwood is composed of industrial roundwood and fuelwood; however, fuelwood has not been considered separately in this estimation.

GRAPH 9.2.4

Top 8 countries' certified forest area, 2004-2005

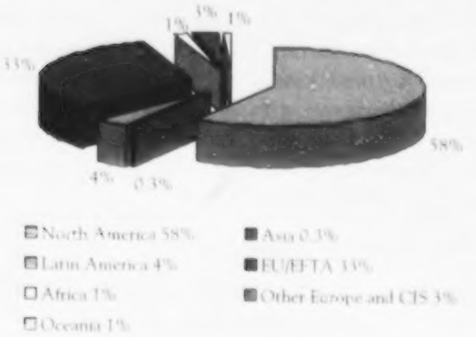


Notes: The graph contains overlap owing to double certification. Areas are as of mid-2005 and mid- 2004.

Sources: Individual certification systems, country correspondents, Forest Certification Watch and Canadian Sustainable Forestry Certification Collation, 2005.

GRAPH 9.2.5

Geographical distribution of certified forest area, 2005



Note: If a forest area has been certified to more than one standard, the area is only counted once, hence the grand total of certifications is less than the sum of individual totals.

Sources: Individual certification systems, Forest Certification Watch and Canadian Sustainable Forestry Certification Collation, 2005.

9.3 Demand for CFPs

The roundwood supply of several large producing countries in Europe is up to 100% from certified forests, such as in Finland and Austria. Nevertheless, a large majority of these products is still marketed without any reference to certification. This was again confirmed by a recently conducted qualitative study in Finland (Owari et al. 2005). The results indicated that certified companies in Finland did not fully exercise their right to use certification labels because they preferred to use existing market channels in order to save costs. There was no effort undertaken by most companies to communicate that their products were certified. For most of the surveyed Finnish companies it was also not possible to charge a price premium. Certification has not helped them to improve their financial performance but was positively evaluated by customers and is seen as a good tool to enhance reputation (Owari et al. 2005).

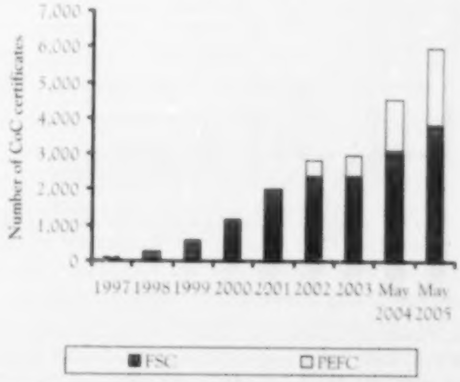
A FSC Forest Owners' Cooperative in Japan found that certification can have a profound impact on sales channels, especially of smaller producers (Ota 2005). The share of sawnwood from this cooperative sold through wholesalers shrank from 41% in 1999 to 22% in 2004. In the same period the sales directly to builders (mainly of ecological houses) rose from 17% to 49%. Likewise, the price per cubic metre of wood sold to wholesalers decreased by approximately 17% while the price per cubic metre to builders increased by approximately 47%.

Lack of awareness and knowledge about certification are often cited as two of the reasons for the generally low demand by downstream industry and consumers, as the majority of products from certified forests are commodity-type temperate softwood. Since some countries, such as Finland and Austria, have certified all their forests, and therefore all supply from forests could bear a label, there is simply little incentive for individual companies to use this as a marketing tool to signal a difference from competitor products. Downstream industries usually do not ask for commodity products to be certified, hence potential supply of CFPs exceeds actual demand in many markets, especially of PEFC-certified CFPs. In addition, a number of major retailers in the US, as well as in Europe, pursue an "own-label-only" policy to assure costumers of the origin and sustainability of their products rather than selling products with the label of one of the third-party certification schemes. However, the amount of CFPs from certified forests is growing and an increasing number of non-tropical CFPs are becoming available through retailers. For instance, an international supermarket chain in Austria now sells its wood products mostly labelled by PEFC. Some do-it-yourself retailers in the United Kingdom, Germany, the Netherlands and Austria are increasingly selling FSC-certified tropical timber.

In the absence of official trade figures, the actual volume or share of CFPs is still not easy to determine. So far, one indication of the amount and characteristics of demand for CFPs in business-to-business markets is the number and types of chain-of-custody (CoC) certificates. Figures of CoC certificates show that after a short stagnation in 2003, the total number of CoC certificates issued has continued to grow in 2004 (graph 9.3.1).

GRAPH 9.3.1

Certification chain-of-custody trends worldwide, 1997-2005



Note: The numbers denote CoC certificates irrespective of the size of the individual companies, or of volume of production.

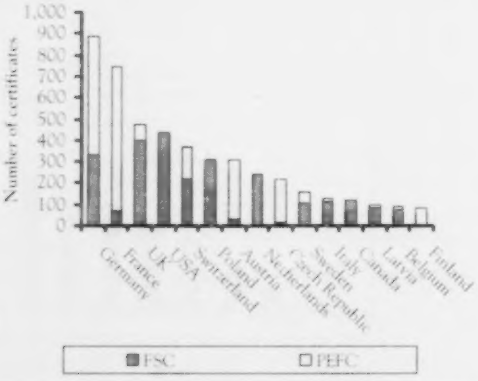
Sources: FSC and PEFC, 2005.

By May 2005 the CoC certificates worldwide totalled 5,979, of which 64% were FSC and 36% PEFC. The relative share of FSC-issued CoC certificates is slightly decreasing as PEFC again managed to have higher growth (plus 45%) than FSC (plus 23%). PEFC mainly gained in France (248 more), Germany (184 more), the Czech Republic (111 more) and Switzerland (95 more). FSC, on the other hand, grew mostly in Japan (91 more), as well as in Germany (84 more) and Switzerland (80 more). As in previous years, FSC and PEFC are the only schemes offering full CoC for CFPs. FSC CoC certificates have so far been issued in 72 (including 6 new) countries and PEFC certificates in 15 (including 2 new) countries. Both the SFI and CSA systems in North America have developed logos, licensing procedures and on-product labelling, but are not issuing CoC licences so far.

In relation to geographical distribution of business-to-business demand for CFPs according to the number of CoC holders in total, Germany leads the table in the UNECE region, with increasing amounts of CoC certificates from both FSC and PEFC (graph 9.3.2). The latter scheme represents two thirds of all German certificates and FSC accounts for one third. France is again rated second with a steadily increasing amount of PEFC certificates leading to a relative share of more than 90%. In third place is the UK, ahead of the US and Switzerland. This ranking illustrates that most countries' markets tend to converge towards one of the certification schemes, with the exception of Germany and Switzerland.

GRAPH 9.3.2

Chain-of-custody certificate distribution within the UNECE region, 2005



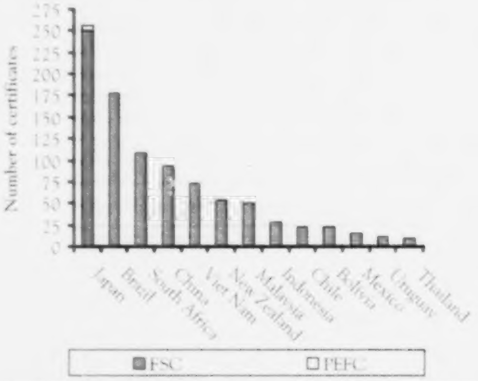
Notes: Countries with less than 50 CoC certificates are not shown. The numbers denote CoC certificates irrespective of the size of the individual companies as of May 2005.

Sources: FSC, PEFC and authors' compilation, 2005.

Virtually all companies holding a CoC certificate outside the UNECE region obtained their certificates from FSC (graph 9.3.3). Japan is, with 256 certificates, ahead of Brazil (177 certificates), followed by South Africa. China, currently ranked fourth, is also turning out to be a rising market for CFPs. This is mainly due to relocation of production facilities by some companies, such as IKEA, to China. However, these companies are mostly supplying export markets in North America and Europe, rather than the Chinese domestic market or other Chinese export markets, which have not, so far, demanded certified products.

GRAPH 9.3.3

Chain-of-custody certificate distribution outside the UNECE region, 2005



Notes: The graph only includes countries with 10 or more CoC certificates. The numbers denote CoC certificates irrespective of the size of the individual companies as of May 2005.

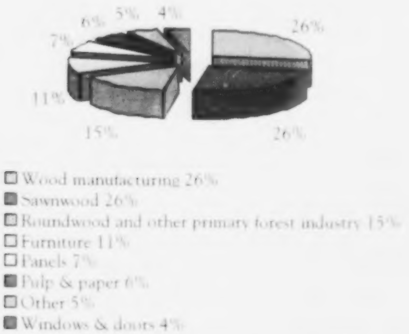
Sources: FSC, PEFC and authors' compilation, 2005.

From available data, it is difficult to eliminate all double counting of CoCs. However, it is known that some paper mills, e.g. UPM's Caledonian paper mill in Scotland, have been certified to both the PEFC and FSC CoC standards. Such producers aim, on the one hand, to increase the availability of certified fibre while comparing the two certification standards on an unbiased basis at this stage in the evolution of the CFP marketplace. On the other hand, they also position themselves favourably in order to enter both FSC-oriented markets and PEFC-oriented markets.

The distribution of CoC certificates across the product range offered shows that companies from all wood-based industries and trade sectors hold CoC certificates. Companies holding CoC certificates of FSC (64%) cover a relatively wide product range (graph 9.3.4). Generally, the distribution of certificates among industry sectors did not change over the last year. Wood manufacturing and sawnwood companies hold approximately half of the CoC certificates, with equal shares. The producers of roundwood hold approximately 15% of certificates, and 11% are in the furniture production sector. PEFC CoC certificates (36% of the total) are mainly issued for timber trade (45%) and sawmilling (27%), followed by other primary forest industries (14%). In contrast to 2004 statistics, the sawmilling sector lost share to other primary forest industries and secondary wood manufacturing (graph 9.3.5).

GRAPH 9.3.4

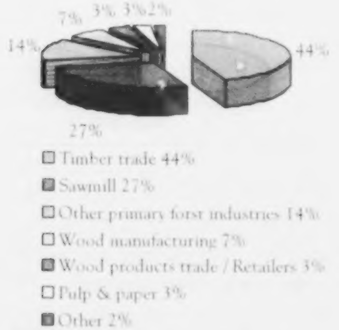
FSC worldwide chain-of-custody distribution by industry sector, 2005



Note: Some overlap between the sectors is possible.
Source: FSC, 2005.

GRAPH 9.3.5

PEFC worldwide chain-of-custody distribution by industry sector, 2005



Note: Some overlap between the sectors is possible.
Source: PEFC, 2005.

Generally, demand by final consumers for CFPs is still relatively low and remains a minor factor in the market for CFPs. In the UK, sales of FSC-certified timber increased four-fold, totalling approximately $1.6 million over the last year (Ethical Purchasing Index). In the Netherlands, consumer knowledge of FSC increased by one third and the recognition of the FSC label increased by 12% to a total of 63% during the last years as a result of a national televised marketing campaign and of a poster campaign (FSC Netherlands). Such sales figures, as well as surveys on consumer perception and awareness of CFPs, might be seen as an indicator of at least increasing interest from the consumer side and will keep the sector under pressure to act, with enhanced public relations efforts.

9.4 Policy issues

9.4.1 *Public wood procurement policies and governance*

National Governments in European markets, including the UK, the Netherlands, Denmark, France, Germany and Switzerland, have developed and are implementing public procurement policies that include criteria favouring the purchase of CFPs, notably from tropical countries, in order to assure or enhance the procurement of sustainably managed, or at least legally logged, timber. In most of the countries there has been considerable and protracted public debate about how public procurement policy for legal and sustainable wood can be implemented. One outcome was that the UK has developed policies that require 100% legality and inclusion of 17% certified raw material in all imported wood products to demonstrate the origin from sustainable managed forests. Implementation of the British guidelines should take place by mid-2005. The Danish approach is to provide guidelines that aim to help purchasers of tropical timber to ensure that wood is from legal and ideally sustainable sources. Contrary to the British approach, there is no effort undertaken to check the reliability of compliance declarations in Denmark.

Although public procurement policies in the EU are not harmonized, such policies continue to be a driving force for certification and a source of demand for CFPs. Similar policy approaches also exist at the municipal level in several countries within the EU/EFTA region, as well as in the US. In the US there has been little discussion so far regarding a public procurement policy, but several NGO initiatives to encourage the use of sustainable forest products have been launched (e.g. Leadership in Energy and Environmental Design).

9.4.2 *Certification and governance in the Russian Federation*

The Russian Ministry of Natural Resources has declared its objective to certify the entire forest area and to start supplying only certified timber to the western market by 2007. The introduction of Russian national standards of voluntary forest certification will begin in 2006 with application for endorsement by PEFC. This certification process is expected not only to pave the way for Russian timber to the international markets but should also help to resolve the problem of irresponsible tree felling. The damage from illegal forest use in Russia is estimated at $200 million annually (according to the Ministry, press release, 14 April 2005, reported in *Forest Certification Watch*). The Ministry further expects that agreement on the creation of an integral organization which will perform representational functions abroad, will boost the process of certification in Russia and the recognition of Russia's national standards at the international level.

9.4.3 *Illegal logging and sustainable forest management certification*

Illegal logging has continued to dominate the agenda of many countries' political discussions related to forest products in 2005. It is one of the key global forest sector problems that SFM-related tools, such as certification, can help to address – although in reality certification and illegal logging are distinct issues. Illegal logging and the associated trade in illegal timber are responsible for vast environmental damage in developing and transitional countries. Illegal logging is closely linked with corruption and bad governance, and robs Governments in affected developing countries of an estimated $15 billion every year in revenues and taxes (World Bank, Forest Certification Watch). In developing countries it also impoverishes rural communities that depend on forest products for a living.

The major problems in fighting illegal logging are: the difficulty in distinguishing between legal and illegal timber; the lack of enforcement capacity in producing and consuming countries; as well as the lack of appropriate legal frameworks. In order to improve the situation several international initiatives, such as the World Bank led FLEG (Forest Law Enforcement and Governance) initiative and the EU FLEGT, (Forest Law, Enforcement, Governance and Trade) initiative, are setting up action plans for legal licensing schemes. Furthermore, the G8 Environment and Development Ministers are making efforts to address the trade of illegal timber, Germany has drafted a law which would oblige German timber companies to certify that timber they import or use has been procured legally. Currently, combating illegal logging under German law is only possible via measures to combat money laundering.

In addition to these government-driven processes, a variety of private or quasi-governmental initiatives, including NGOs and timber trade associations (for example, in the UK, Denmark, the Netherlands, France and Belgium) have been initiated in parallel in order to tackle the issue of illegal timber.

In all of these discussions and initiatives, both public and private, the experience gained in the process of setting up SFM certification schemes has been extremely valuable in tracking timber and in devising appropriate oversight and licensing schemes. However, it appears that it is not always clear to those involved that legality and sustainability are two very distinct issues, even if similar schemes and tools are devised for both.

One interesting approach was taken by the UK public procurement scheme, which aims at procuring legal and sustainable timber, assuring a minimum standard of proof of legality that should be required for all purchases. The UK system uses an approach with three levels: legal, legal and progressing towards sustainable, and legal and sustainable. This approach is applicable to all timber sources. UK policy to date has used FSC or its equivalent as an example of sustainability, but is now establishing a comprehensive means of defining and verifying sustainability and legality. Where certification is lacking, the system considers the problem of verifiable alternative documentation. The UK believes it has observed a major shift in supplier attitudes, with most suppliers now fully understanding and appreciating the objectives of the policy. Procurement policy is commonly cited by industry in Britain as a major driver for change in its own behaviour (Brack and Saunders 2004).

9.4.4 *Carbon sequestration verification and the Kyoto Protocol*

In October 2004 the Kyoto Protocol was ratified by the Russian Duma and went into force in February 2005. The Protocol explicitly allows for afforestation and reforestation under the clean development mechanism (CDM) in the first commitment period. Hence, forest certification might in the near future play a role as a verification mechanism, in a wider context of simplified modalities and procedures, for small-scale afforestation and reforestation project activities under the CDM.

In the southern hemisphere, e.g. in South Africa, Chile, Australia and New Zealand, certification of plantation forestry is increasing. Approximately one third of New Zealand's short-rotation plantations have been certified during recent years in order to meet the increasing market requirements at their main destinations in the US and Japan. Certified biomass for bioenergy from short-rotation forestry could play an increasing role under the CDM to meet the commitments and substitute fossil fuel under controlled sustainable production. In addition, in Nordic and central European countries the sector of forestry biomass-based heating systems on municipal and rural levels is maturing and there is competition with the pulp and paper industry for the same resources.

In addition, certification might be a tool for ensuring that forests used for carbon sink measures are also managed in a sustainable way in order to fulfil multiple purposes (ecological, economical and social). The techniques developed by certification standards might consequently be used in order to monitor compliance of such sequestration forests or plantations with the Kyoto Protocol.

9.4.5 *Endorsement and mutual recognition*

PEFC has currently endorsed 18 national schemes. Most recently, the Canadian national scheme, CSA, was endorsed, which means in practice that products from its 63.7 million hectares of certified forest area can be sold with reference to PEFC as well. Five schemes are currently being assessed (Brazil, Estonia, Lithuania, Luxembourg and Slovakia). According to national experts, this endorsement policy by PEFC is expected to have a driving impact on the development of certification as well as on the CFP market itself. Similarly, FSC runs programmes to accredit national and sub-national standards that comply with FSC requirements. FSC is not pursuing a policy of mutual recognition accreditation. Some European countries are trying to harmonize the two standards, which enables the practice of double certification using the two systems in a parallel way – for instance in Sweden. The ATFS and the SFI in the US mutually recognize their forest management standards and certification systems for large and small forestland owners. Worldwide, FSC and PEFC now endorse or accredit over 50 national schemes. Mutual recognition between these two schemes, however, is not expected in the near future. There is still concern that this competition between the two worldwide major certification schemes is confusing the consumer and thus discouraging the sound use of wood. However, some steps are being taken to bring the systems closer – in the Netherlands there is a combined CoC group certification for FSC and PEFC for wood harvesting and trading companies.

9.4.6 *Phased approach for tropical forests*

A phased or "step-by-step" approach has been advocated, especially for tropical forests, for some time. Phased approaches to certification have been proposed as a way of assisting developing countries to pursue certification. Under such approaches, full certification remains the goal, but companies and other forest owners can achieve market recognition for their efforts towards improving their forest management practices even before they achieve full certification (ITTO 2005). Such a step-by-step approach requires certain principles, such as a goal of full certification, a defined timeframe, adequate means to communicate, transparency, and independent audits. It is increasingly recognized that tropical countries may not be able to achieve fully SFM in one step, even with the help of an effective certification arrangement, so a step-by-step approach (i.e. first legality, then sustainability) is increasingly advocated, although some observers consider this (acceptance of legal but not sustainable timber) as an unacceptable lowering of standards. Different implementation procedures of phased approaches are controversial and continue to be debated by experts, and provisions for such certification have been slow to be adopted. Only LEI (Lembaga Ekolabel Indonesia, the Indonesian Eco-Labelling Institute) is currently running a pilot project on the build-up of a phased approach to tropical forest certification.

Participants in an ITTO-led workshop in Berne, Switzerland, in April 2005 agreed that the slow process of forest certification in tropical-timber-producing countries might undermine the credibility of forest certification as a tool to promote SFM in the tropics. The main obstacles impeding certification in the tropics, as identified by the experts, included inadequate capacity to implement SFM, additional costs, as well as various ecological and socio-economic complexities related to certification of natural tropical forests.

The workshop concluded with a set of recommendations, suggesting that ITTO endorse the concept of a phased approach as one of the useful tools in promoting SFM and accelerating forest certification in tropical timber-producing countries while supporting pilot projects and disseminating the results. It was recommended to the governments of consuming countries, that they consult with producing countries and their stakeholders when developing public procurement policies, to carry out pre-assessment of sustainability impacts of their planned policies in tropical timber-producing countries, and to include provisions for phased approaches to certification in these policies. In addition, producing countries should strengthen their verification systems of legal origin and legal compliance to be able to provide robust evidence for addressing market and stakeholder needs. Certification systems were addressed as well, with a recommendation to put in place appropriate provisions for phased approaches and to further advance programmes for mutual recognition. Meanwhile, stakeholders in tropical-timber-producing countries were urged to fully cooperate in the development of national standards and schemes, and buyers and other stakeholders in consuming countries were urged to consider the impacts of their requirements on tropical-timber-producing countries.

9.4.7 *Certification of plantations and revision of standards*

As of May 2005, there were about 200 million hectares of plantation worldwide, of which approximately 11% (plantation and mixed plantation and natural forest) are currently certified. In the case of FSC, some of the plantation-certificates issued by the scheme (6 million hectares of plantations and 17 million hectares of mixed plantation and natural forest) have been criticised mainly in relation to social impacts. Much controversy has been generated from instances in which plantation forestry has created or exacerbated social conflict over land use. This encouraged FSC to start a full review of its policies and standards for plantations in September 2004. The aim of this 2-year project is to find an appropriate solution based on all three FSC chambers (environmental, social and economic). A participatory two-phase approach was established by which in the first phase the policy issues need to be identified, debated and resolved, and in the second phase technical solutions will be developed to meet the policy requirements identified.

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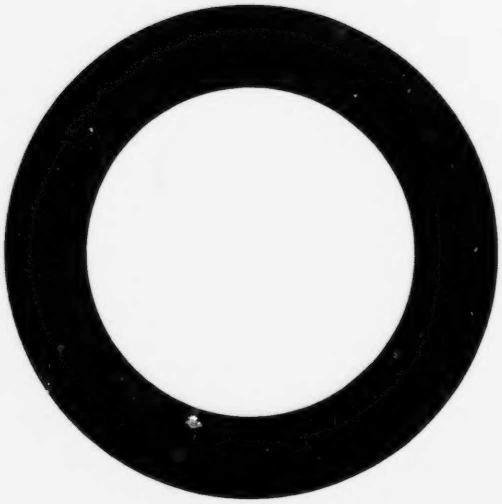

Chapter 10

Value-added wood products industry implements policies to stay competitive: Value-added wood products markets, 2004-2005[63]

Highlights

- Value-added wood products (VAWPs) imports by the five largest importers grew by 17% to a total of $37 billion in 2004.
- Wooden furniture and parts grew impressively by 15%, builders' joinery and carpentry (BJC) increased by 19% and profiled wood and mouldings rallied by 38%, in part due to the weakened dollar.
- United States imports grew by 15% for wooden furniture, 32% for BJC, and 54% for profiled wood, to a greater value than the other top four countries combined: Germany, France, United Kingdom and Japan.
- China's wooden furniture trade continued to increase, together with that of the US, despite anti-dumping measures imposed by the US during 2004.
- Europe and Canada appear to be the next major targets for Chinese exporters, who are consolidating their outsourcing capacities into mega-factories and diversifying their furniture from mass-market items to the higher end of the market.
- With mainly wood-based construction of almost 2 million homes in 2004, US continued imports of BJC and profiled wood jumped 32%, as domestic production became less competitive.
- The European Confederation of Woodworking Industries (CEI-Bois) initiated the Roadmap 2010 strategy to boost competitiveness of EU value-added woodworking industries.
- North American glulam timber production reached a record high in 2004, attributed mostly to the huge housing market and stock beam capacity.
- Exceptionally strong housing market, combined with a reviving economy, provided a background for record production of glulam timber, I-beams and LVL in North America in 2004.
- Market acceptance of LVL for beams and headers makes LVL the fastest growing engineered wood product in North America.

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[63] By Mr. Jukka Tissari, Mr. Craig Adair and Dr. Al Schuler.

Secretariat introduction

This chapter's analysis of the trade flows of value-added wood products (VAWPs) and engineered wood products (EWPs) complements our comprehensive market analysis. The chapter is divided into two sections: value-added furniture and joinery products, and engineered wood products. The international trade of value-added forest products is an indication of national capabilities to produce for the export market. A significant domestic market also exists in many countries. Some of the production of primary products is not accounted for in statistics when integrated processing occurs; for example, from log processing directly through furniture component manufacturing.

Out thanks to Mr. Jukka Tissari,[64] Head of Business Intelligence and Market Research at Savcor Indufor Oy, who has analysed the value-added markets for the fourth year in a row. As national sources have been used this year, the scope is reduced from global. Instead, the top five countries' national statistics have been compiled to capture the changes of trade flows between countries and supplier regions. Intra-regional trade is nevertheless very important in VAWP trade. We also thank Mr. Tapani Pahkasalo, Market Analyst, Savcor Indufor Oy, and former assistant on the *Review* in 2003, who also assisted in the preparation of this section.

We greatly appreciate once again the analysis of the North American engineered wood products market, which was reviewed by Mr. Craig Adair[65], Director, Market Research, APA–The Engineered Wood Association and Dr. Al Schuler,[66] Research Economist, USDA, Forest Service. Dr. Schuler is a member of the UNECE/FAO Team of Specialists on Forest Products Markets and Marketing. Engineered wood products continue to show innovative design and applications: they are part of the solution to the "sound use of wood" policy, as recommended by the UNECE Timber Committee and FAO European Forestry Commission.

10.1 Introduction

Demand for value-added wood products (VAWPs) are greatly influenced by the dynamics of construction and home decoration activity. Most visibly, the construction sector absorbs builders' joinery and carpentry (doors, windows, roof trusses, parquet and other flooring systems). Household furniture and accessories are directly dependent on new residential construction and office furniture on non-residential construction. A growing segment for both builders' joinery and carpentry (BJC) and furniture is for the renovation, maintenance and improvement (RMI) sector, which already accounts for 40-50% of total construction in western Europe. But furniture is much more of a fashion item with shorter change intervals, trend-setting and even seasonal styles. The furniture sector uses considerable sawnwood, wood-based panels, hardwood components and profiled wood; hence, the sector creates demand for primary-processed wood products.

Engineered wood products achieve new performance characteristics by combining primary products, such as sawnwood and veneer, into higher value products of glulam and laminated veneer lumber (LVL). Flakes and fibres are reconstituted with resins and adhesives to produce new products that meet the performance requirements for construction materials and other value-added wood products, such as furniture. EWP growth continues, especially in North America, but more and more in Europe and Japan. Demand for EWPs, and subsequently for their primary-processed raw materials, is intrinsically linked to housing construction in North America, as is the case with VAWPs. However, other than residential construction needs, EWPs are gaining market share in furniture and other applications, substituting for solid wood, and sometimes for non-wood materials.

10.2 Imports of value-added wood products in 2001 and 2002

10.2.1 *Wooden furniture imports in major markets*

In the aggregate, the world's five largest importers (US, Germany, France, UK and Japan) purchased $29.2 billion of wooden furniture in 2004 (table 10.2.1 and graph 10.2.1). This was 15% more than the previous year. The growth trend in trade was impressive, although it can be partly explained by the falling US dollar rate against the euro.

The US has continued to grow as the world's largest importer of wooden furniture. Its imports reached $14.5 billion in 2004, up by 14.6% from the previous year. This reflects the lasting consumer confidence and housing boom in the country, as well as the domestic producers'

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TABLE 10.2.1

Regions of origin of furniture imports for five top importing countries, 2003-2004

(%)

	United States		*Germany*		*France*		*United Kingdom*		*Japan*	
Exporting regions	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*
Asia	54.4	57.5	9.6	11.8	11.9	13.9	24.8	28.6	78.9	81.0
North America	21.0	19.4	0.2	0.2	0.7	0.4	1.7	1.5	2.5	2.0
Europe	15.9	14.1	88.8	86.4	82.5	81.2	68.9	65.8	8.3	16.8
Latin America	8.3	8.7	0.7	0.7	3.5	3.3	2.2	2.2	0.0	0.0
Others	0.3	0.3	0.6	0.9	1.4	1.2	2.4	1.8	0.2	0.1

Sources: Eurostat, Japan's Imports of Commodity by Country, ITA (International Trade Administration, Under-Secretary for International Trade of the US Government), 2005.

loss of market share to Chinese producers. US demand is linked to record housing starts, which approached the magical 2 million mark in 2004, driven in large part by demographics, immigration and affordability.

Most of the growth potential in subsequent furniture consumption has been captured again by China, which continues to expand its bedroom furniture deliveries in particular. At the same time, China is also diversifying its export range, consolidating the furniture industry into larger units, and moving into higher-end furniture to improve earnings.

A temporary interruption in China-US furniture trade occurred in mid-2004, when the US imposed anti-dumping duties. The preliminary duty came into force in June 2004, and curtailed American orders for Chinese bedroom furniture. At the time, Vietnamese and Malaysian furniture makers gained market share over their Chinese rivals. But this lasted only until late 2004, when lower than anticipated final duties were announced. China soon recovered its position to reign over outsourced US furniture. Typically, outsourcing involves the manufacturing of furniture in China according to US-made raw materials, designs and quality specifications. Most of such furniture returns to the US retail market, but some collections are also directed to the upper-market furniture shops inside China and the southeast Asian capitals. They meet the tastes of the most discerning local clients and expatriate consumers. The highest quality furniture normally carries an American brand or label.

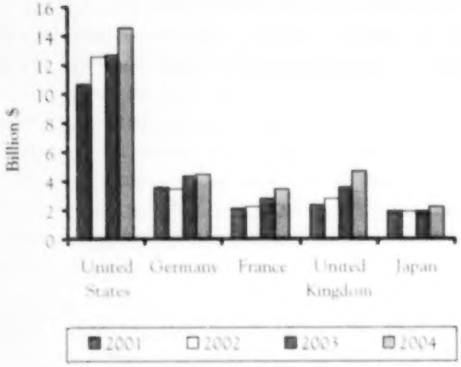
Also corresponding to housing starts in other major markets, imports of wooden furniture grew briskly, i.e. in US dollar terms, by 30%n the UK 20%; in France, and 15% in Japan. Only in Germany did imports remain relatively flat, with just 2.3% growth. Considering the continuous devaluation of the US dollar during 2004, the euro-denominated growth rates have still been strong, but not as dramatic as in US dollars. In fact, Germany's imports fell noticeably in euros.

Over the last year, there have been some significant changes in the trade flows of wooden furniture and parts between regions. Asia's role grew even stronger as a supplier to the US, mainly at the expense of Canada and Europe. China's currency being pegged to the devaluing US dollar has helped to maintain steady trade flows, causing friction with other suppliers, both domestic and with other import sources. The same pattern also held true for the other four largest import markets. Particularly, UK imports from Asia expanded rapidly in 2004. These are early signs of the gradual rise of inter-regional furniture trade at the expense of traditional intra-regional flows.

Since last year's anti-dumping case against Chinese furniture in the US, there have been rising concerns in Canada and in Europe about the Asian influx of affordable furniture. Both regions have been victims of unfavourable exchange rate development, and China is aggressively seeking new channels to bring its manufacturing clout into Canada and Europe. Although outsourcing arrangements between Europe and China have not yet become as large-scale as in the US, this business model has certainly contributed to pushing the extra-EU trade balance into deficit since 1999. The years 2002 and 2003 witnessed a fast-growing spread between extra-EU imports and extra-EU exports. The trade deficit in 2003 amounted to 3.6 billion euros ($4.4 billion at 2003 exchange rates), and it is very likely that it will continue widening.

GRAPH 10.2.1

Furniture imports for 5 top importing countries, 2001-2004



Sources: Eurostat, Japan's Imports of Commodity by Country, ITA (International Trade Administration, Under-Secretary for International Trade of the US Government), 2005.

10.2.2 *Builders' joinery, carpentry and profiled wood*

In builders' joinery and carpentry (BJC), the world's top five importers, which are the same as those for furniture, reached a trade figure of $5.1 billion in 2004, up 19% from the previous year (table 10.2.2). Trade expanded by $800 million from 2003 to 2004 (graph 10.2.2). Part of that amount was generated by the falling US dollar rate.

The US had the largest import value, namely $2.5 billion, in 2004. It also created much of the growth by purchasing $600 million more BJC products than in 2003. Wooden houses have remained popular, with an 87% share of new single-family houses, so they continue to generate healthy demand for wood products. However, concrete and steel are gaining ground in single-family residential construction. Builders are taking steps to streamline building processes and lower construction site costs, and factory-built, panelized building systems are growing in popularity to achieve those goals.

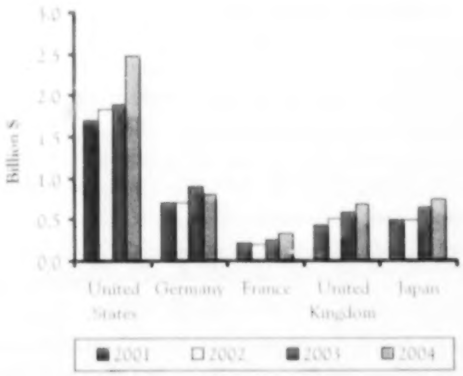
In all other major markets except Germany, imports of BJC maintained a growth trend. Germany remained, however, the second largest importer, although its lead narrowed to Japan and the UK. In contrast with the US, wood-based housing construction is much less common in Europe. On average, only 7% of new dwellings in western Europe are constructed of wood, with not more than 3% in eastern Europe. However, there are wide variations between countries. A more positive trend is occurring in the UK and German-speaking Europe than in southern and eastern Europe. Wood has taken higher shares in the smaller Nordic markets, particularly in Finland. Imports of profiled wood also recorded strong growth in 2004 (table 10.2.3). Combined imports of the top five countries went up as much as 36% from the previous year. In total, their 2004 import value was $2.4 billion, compared to $1.8 billion in 2003 (graph 10.2.3).

The US increased imports by more than 50% to reach $1.5 billion in 2004. Japan was the second largest importer with $0.3 billion of trade value. The UK imports were nearly the same size, having imported $0.3 billion that year. Germany and France followed with just below $200 million.

Latin America grew strongly in importance with regard to US imports. More profiled wood also came from Asia, while trade with Europe and Canada contracted. Exchange rates posed problems for exporters pricing products in euros or in Canadian dollars. European countries imported clearly larger shares of their profiled wood demand from Asian countries, but there were large differences in the import structures between them. The UK has opened up the Asian imports to a much greater degree (35% share) than Germany and France. This has not come without a decline in European and North American deliveries into the UK. France is importing more Latin American mouldings and other types of profiled woods (15% in 2004) than its European neighbours. In Japan, the European supplies have expanded to account for 15% of all imports. Much of the growing supplies have come from the central and eastern European countries (CEECs). In broad terms, the major trade flows of BJC continue to be intra-regional by nature. Inter-regional trade of BJC is not speeding up as much as the furniture trade.

GRAPH 10.2.2

Builders' joinery and carpentry imports for top 5 importing countries, 2001-2004



Sources: Eurostat, Japan's Imports of Commodity by Country, USDA FAS, 2005.

TABLE 10.2.2

Regions of origin of builders' joinery and carpentry imports for top five importing countries, 2003-2004

(%)

	United States		*Germany*		*France*		*United Kingdom*		*Japan*	
Exporting regions	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*
Asia	10.5	11.1	5.5	7.0	10.7	9.9	19.8	19.6	44.0	50.8
North America	67.0	67.4	0.2	0.4	1.7	1.2	10.3	9.5	12.8	10.1
Europe	7.0	6.0	93.7	91.6	83.7	85.2	57.5	57.3	37.0	33.1
Latin America	13.6	13.9	0.1	0.2	2.6	2.5	4.3	4.7	0.1	0.1
Others	1.9	1.7	0.5	0.8	1.2	1.2	8.1	9.0	6.1	5.9

Sources: Eurostat, Japan's Imports of Commodity by Country, USDA Foreign Agricultural Service, 2005.

TABLE 10.2.3

Regions of origin of profiled wood imports for five top importing countries, 2003-2004

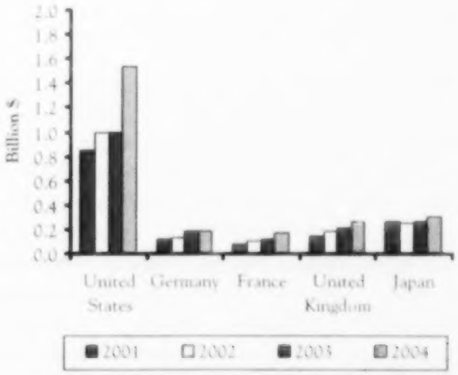
(%)

	United States		*Germany*		*France*		*United Kingdom*		*Japan*	
Exporting regions	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*	*2003*	*2004*
Asia	19.3	21.3	11.6	15.1	9.3	10.3	23.4	35.7	76.3	71.8
North America	30.6	23.2	1.4	1.4	0.8	0.5	13.0	9.4	10.0	7.6
Europe	5.5	4.3	85.6	81.1	79.7	70.3	60.5	52.9	9.2	14.9
Latin America	40.1	47.8	0.3	0.8	8.3	15.4	1.0	1.0	2.9	4.2
Others	4.6	3.4	1.1	1.5	1.9	3.5	2.0	1.0	1.6	1.5

Sources: Eurostat, Japan's Imports of Commodity by Country, USDA Foreign Agricultural Service, 2005

GRAPH 10.2.3

Profiled wood imports for top 5 importing countries, 2001-2004



Sources: Eurostat, Japan's Imports of Commodity by Country, USDA FAS, 2004.

10.2.3 *Industry association policies for sustainable development of VAWPs and EWPs*

Faced with rising competition from the globalization of trade of VAWPs and EWPs, producer associations in the UNECE region are coming together to face common problems and seek common solutions. Trade associations are engaging with local, state and regional Governments to ensure coordination to produce policies to maintain sustainable development of the forest and forest industry sector. Both in Europe and North America, groups of trade associations, often supported by universities and research institutions, as well as other stakeholders, are developing and implementing forward-looking strategies to produce and market VAWPs effectively, and consequently maintain demand for the primary products used to produce them, and to maintain value in the UNECE region's forests.

10.2.3.1 Europe: Roadmap 2010 implementation

As an example of industry associations working together, and collaborating with regional governmental bodies, in this case the EU, last year's chapter reported that the European Confederation of Woodworking

Industries (CEI-Bois) was developing strategies to foster higher demand for VAWPs. Their strategies align with national and EU policies to better integrate VAWPs for the sustainable development of the forest and forest industry sector. This was deemed necessary to allow the European woodworking industry to compete successfully on world markets with wood products and building system solutions, spurred by a sound European business climate, in the face of imports.

Since last year CEI-Bois has taken important steps to ensure the practical implementation of the policies within the Roadmap 2010. It established working groups for common issues, specifically on international affairs, technical and environmental issues, research and development, lobbying, promotion and social affairs.

The most important share of CEI-Bois members' profits is from the furniture and BJC industries, and therefore their strategies influence and promote those industries more than any other policy process does at the moment. Working groups lend direct support to the European VAWP industries by addressing competitiveness, market access, e-commerce and EU enlargement, to name but a few key issues. It also extends indirect support to their supply chains, mainly by defending the primary processing industries' desire to have priority access to roundwood before the competing bioenergy sector. CEI-Bois Roadmap 2010 aims to develop an effective policy and practical strategies to avoid a damaging conflict of interests between the two sectors.

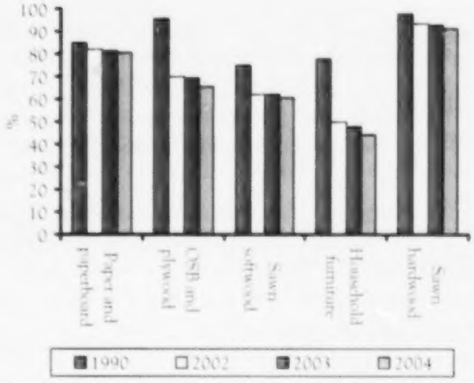
Sharpening of policy actions is coupled with intense lobbying to safeguard the economic, environmental and social interests of VAWP producers. The VAWP industry's ability to yield higher dividends for both sectoral and national sustainable development is perceived to be worth maintaining.

10.2.3.2 North America: Associations working together

The same scenario is occurring in North America, with numerous trade associations implementing strategies to remain competitive. The domestic share of the US consumption of primary wood products has fallen by 10 to 20% over the last 12 years, and by even more for VAWPs (graph 10.2.4). In the US household furniture market, over 50% is imported, as compared to 25% only 10 years ago. There are important ramifications upstream for the primary products going into the diminished production of US furniture, e.g. sawn hardwood, MDF, particleboard and veneer.

GRAPH 10.2.4

United States consumption declined for major wood products from 1990-2004



Note: Household furniture figure for 2004 is an estimate from 2005.

Sources: UNECE/FAO TIMBER database, USDA Forest Service, US Department of Commerce, Bureau of the Census, Random Lengths, USDA Foreign Agricultural Service, and Mann, Armistead and Epperson, Ltd., Investment Bankers and Advisors, 2005.

North American trade associations, in collaboration with local and state government agencies, have carried out end use studies to understand the trends and their causes[61]. The end use demand studies provide a benchmark of current consumption patterns, as well as a means to assess changes in the role of wood in specific markets over time. With this information, the associations can plan together their strategies and marketing tools. End use demand studies have been undertaken for the following market sectors: residential construction, residential repair and remodelling, non-residential construction and industrial and manufacturing markets.

The following trade organizations share common policies to promote efficient value added production in the face of increasing globalization, many which are members of the North American-based Wood Promotion Network:

APA – The Engineered Wood Association, Canadian Wood Council, Composite Panel Association, Forintek Canada Corporation, Kitchen Cabinet Manufacturers Association, National Wood Flooring Association, NOFMA—The Wood Flooring Manufacturers Association, Southern Forest Products Association, The Hardwood Council, US Department of Agriculture, Forest Service and Western Wood Products Association.

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[61] Adair, C., McKeever, D. and Schuler, A. "North American Demand for Wood Products by End Use", presentation at the Forest Products Society Meeting, Quebec City, Quebec, Canada, June, 2005.

According to the Timber Committee and European Forestry Commission Market Discussions in 2004, low-cost producers in every market sector are putting severe price pressure on their competitors worldwide. If they are to survive, companies in the UNECE region have to maintain and improve their competitiveness, making radical strategic changes as necessary, and taking full account of trends in global markets.[108].

10.3 North American engineered wood products markets

Good housing markets in the US and Canada in 2003 and 2004 have helped EWPs become even more accepted. Builders continue to seek products with highly predictable performance that result in fewer problems for the homeowner after the home is completed. The following EWP analysis is based on North American data, because it is the only information available in the UNECE region. Most of the world's EWP manufacturing and trade occurs in North America because of wood-based construction. However, other countries outside the UNECE region, such as Japan, are manufacturing and using EWPs. The analysis below shows the potential of this market sector, which elevates wood use to compete with substitutes for traditional and new applications.

10.3.1 *Glulam timber*

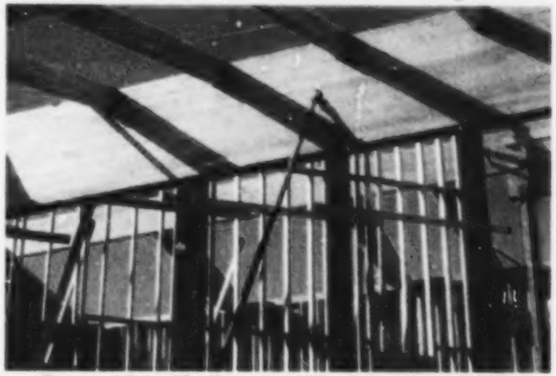
Glulam production reached a North American record of 618,000 cubic metres in 2004. This can be attributed mostly to the huge housing market and stock beam capacity that was available at the time to service increased demand. Stock beams are standardized long-length beams that can be cut to the desired length at the final point of sale to meet the required consumer specifications. The reviving nonresidential construction market also helped increase glulam demand (figure 10.3.1). Glulam manufacturers indicated that they were running at capacity in the latter months of 2004 and into 2005.

In the short term, glulam demand for stock beams should increase and glulam is expected to participate in the cyclical upswing of nonresidential building construction in the US (table 10.3.1 and graph 10.3.1).

There were an estimated 54,000 cubic metres of US imports in 2004 and imports could increase in the future. Imported glulam acceptance by building code officials and builders is uncertain. Unfortunately, there are no harmonized trade codes to enable tracking imports. However, the APA – The Engineered Wood Association, in concert with other groups, anticipates an agreement on harmonized trade nomenclature by 2007. Even when codes are available, it is unknown when countries will begin to make glulam trade data available.

FIGURE 10.3.1

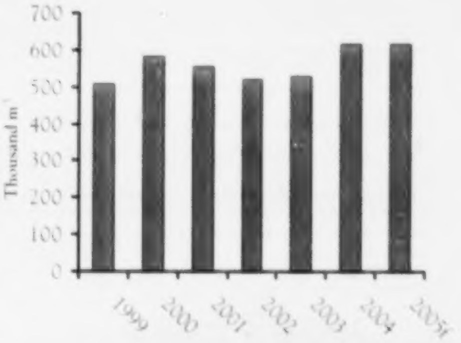
Glulam beams used in a residential building



Source: APA – The Engineered Wood Association, 2005.

GRAPH 10.3.1

Glulam production in North America, 1999-2005



Notes: f = forecast. Conversion factor: 650 board feet per cubic metre.

Source: APA – The Engineered Wood Association, 2005.

Approximately 37% of glulam timber is used for new residential construction and residential remodelling floor beams and, when other residential uses are added, over 70% of the volume can be attributed to new home construction and remodelling (graph 10.3.2). The next largest segment is the nonresidential building construction market, with 26% of glulam demand.

New technology and product development provides a basis for expecting modest glulam market share gains in the future. A new generation of glulam beams with even higher design strengths provide more opportunities in both residential and nonresidential markets.

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[108] http://www.unece.org/press/pr2004/04tim_n01e.htm.

TABLE 10.3.1

Glulam consumption and production in North America, 2001-2005

(1000 m³)

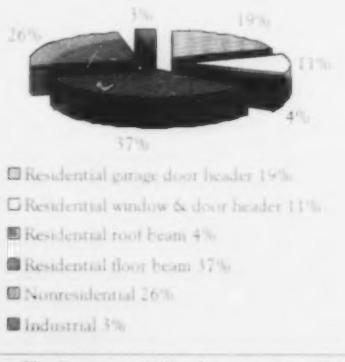
	2001	*2002*	*2003*	*2004*	*2005f*	*% change 2001-2005*
United States						
Consumption						
Residential	323.1	332.3	352.3	447.7	430.8	33.3%
Nonresidential	163.1	135.4	138.5	153.9	176.9	8.5%
Industrial, other	18.5	18.5	18.5	20.0	21.5	16.7%
Total	504.6	486.2	509.2	621.5	629.2	24.7%
Exports	26.2	21.5	15.4	10.8	15.4	-41.2%
Imports	15.4	13.9	27.7	53.9	61.5	300.0%
Production	515.4	493.9	496.9	578.5	583.1	13.1%
Canada						
Consumption	18.5	15.4	18.5	21.5	18.5	0.0%
Exports	20.0	10.8	12.3	18.5	15.4	-23.1%
Canada production	38.5	26.2	30.8	40.0	33.9	-12.0%
Total North American production	553.9	520.0	527.7	618.5	616.9	11.4%

Notes: US export information is from manufacturer records. US imports are from Canada and Europe. Canadian trade data are estimates. Canadian imports are minimal. f = forecast. Conversion factor: 650 board feet per cubic metre.

Source: Source: APA – The Engineered Wood Association, 2005.

GRAPH 10.3.2

Glulam end uses in North America, 2004



Source: APA – The Engineered Wood Association, 2005.

Innovation to obtain better, more competitive products is coming from glulam beams made with a layer of lamination made from LVL or a fibre-reinforced polymer (called "tension lams"). Currently, there are four companies manufacturing glulam with LVL tension lams and two companies using synthetic fibre-reinforced polymers. Fibre-reinforced polymers can increase glulam strength by 40%, which should help wood building construction compete with steel.

10.3.2 I-beams

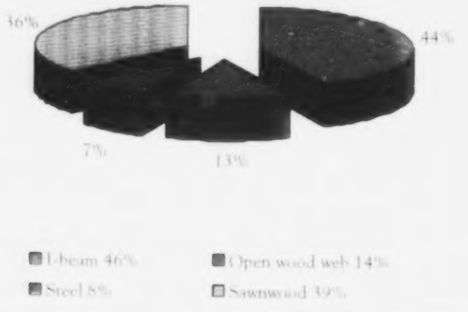
I-beams are gaining market share and in 2004 enjoyed a 46% share compared with 39% for solid sawnwood floor beams and 14% for open web, wood trusses (graph 10.3.3). Steel floor joists had less than 1% of the market.

Survey data are used to document I-beam market penetration. The latest survey information (2003) from the National Association of Home Builder's Research Center shows a share decline in 2003. The share decline can be explained from manufacturers' comments about unattractive prices in the first half of 2003 and a mid-year cost squeeze from increasing prices of web and flange material (graph 10.3.4).

There was not a substantial incentive to increase production until late in 2003. Comparison of housing starts to I-beam production gains in 2004 indicates that I-beam market share increased in 2004. Economics currently favour the sale of LVL for beams and headers rather than using LVL for I-beam flanges. APA expects I-beam market shares to continue to grow in the future.

GRAPH 10.3.3

New residential raised floors in North America, 2004

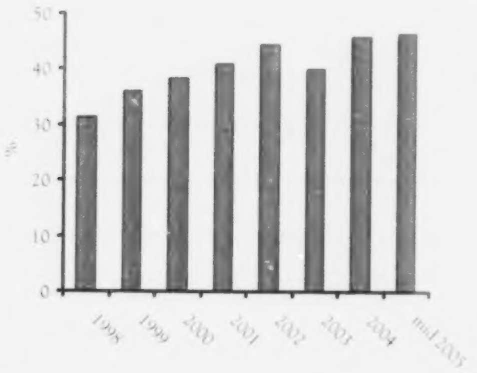


Note: Types of beams supporting raised floors (as opposed to concrete slabs).

Source: APA – The Engineered Wood Association, 2005.

GRAPH 10.3.4

I-beam market share, United States, 1998 – 2005



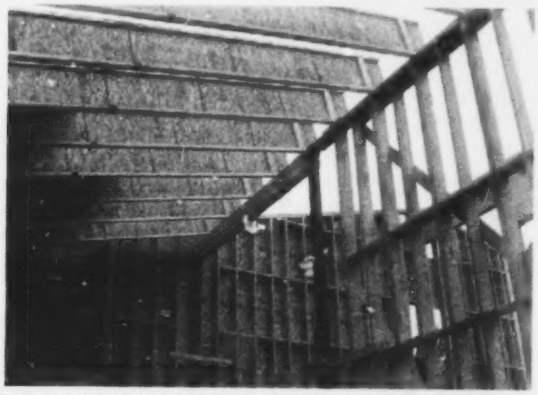
Note: Wooden I-beams percent market share of total raised floor area.

Source: NAHB builder surveys, 2004.

I-beams still have the advantage of predictable quality with less waste compared with solid sawn floor joists (figure 10.3.2). Larger builders like the performance of I-beams, and continued builder consolidation should provide for demand growth. As more OSB capacity is built, there should be a greater supply of web stock for I-beam manufacturers. Current flange materials are LVL, solid sawnwood and laminated strand lumber.[108] In the near term, possibly the best chance of increasing the supply of flange stock is through imported LVL. Some I-beam manufacturers are interchanging sawnwood flanges with LVL flanges depending on cost factors and market acceptance. An estimated 74% of all I-beams used LVL flanges in 1997, but that fell to 68% in 2003. In 2004, approximately 54% of all I-beams were made with LVL flanges. APA expects to see more solid sawnwood and laminated strand lumber used in I-beams in the future.

FIGURE 10.3.2

I-beams in the roof of a non-residential building

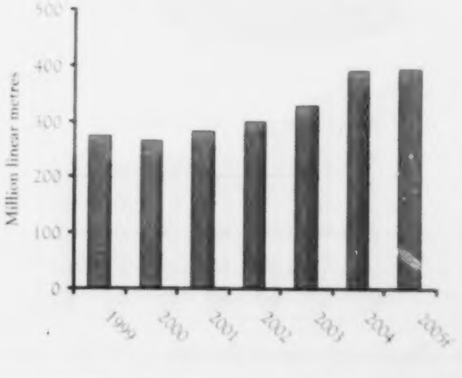


Source: APA – The Engineered Wood Association, 2005.

In 2004, an estimated 890 million linear feet of I-beams were used in US residential floors, roofs and walls and 225 million feet were used for remodelling and nonresidential building construction in the US (table 10.3.2 and graph 10.3.5).

GRAPH 10.3.5

I-beam production in North America, 1999-2005



Notes: f = forecast. Conversion factor: 3.2802 linear feet per metre.

Source: APA – The Engineered Wood Association, 2005.

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[108] Lumber is used synonymously with sawnwood in this chapter.

TABLE 10.3.2

Wooden I-beam consumption and production in North America, 2001-2005

(million linear metre)

	2001	*2002*	*2003*	*2004*	*2005f*	*% change 2001-2005*
United States						
Demand - domestic markets						
New residential	216.4	236.2	221.0	271.3	266.7	23.2%
Nonresidential, other	33.5	32.0	59.4	68.6	73.2	118.2%
Total domestic	249.9	268.2	280.4	339.9	339.9	36.0%
Production	227.7	230.4	243.2	268.2	266.7	17.1%
Canada						
Demand - domestic markets and offshore	32.3	30.8	46.9	50.9	46.9	45.3%
Production	54.6	68.6	84.1	122.5	84.1	54.2%
Total North American production	282.2	299.0	327.4	390.8	393.2	39.3%

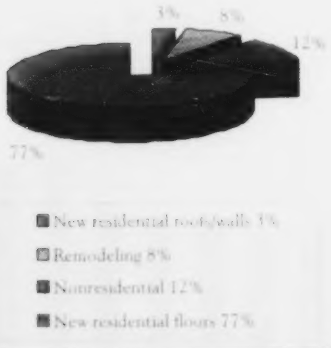
Notes: Residential includes mostly single and multifamily floors, although some is used in walls and roofs. "Other" includes remodelling, non-residential construction and some export. f = forecast. Conversion factor: 3.2808 linear feet per metre.

Source: APA - The Engineered Wood Association, 2005.

In 2004, 77% of I-beams were used in new residential floor construction and 3% in residential roofs and walls (graph 10.3.6). Approximately 8% were used in remodelling and 12% in nonresidential building construction. A small volume of I-beams are exported, mainly to Asia.

GRAPH 10.3.6

I-beam end uses in North America, 2004



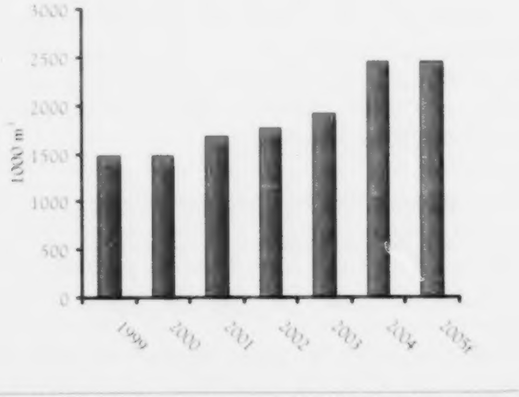
Source: APA – The Engineered Wood Association, 2005.

10.3.3 *Laminated veneer lumber*

LVL production increased dramatically in 2004 in response to housing starts and as a result of more building designers engineering LVL into their home plans (table 10.3.3 and graph 10.3.7). Today, LVL manufacturers are finding a better return on beams and headers than on I-beam flanges. The demand for LVL beams and headers will continue to grow (figure 10.3.3). While veneer needed for LVL is currently in tight supply, this is expected to be a short-term phenomenon. Both veneer and LVL could be imported to solve the problem. Longer term, the industry could lower the strength requirements for short span headers to a point where more of the domestic veneer resource can be utilized.

GRAPH 10.3.7

LVL production in North America, 2005



Notes: f = forecast. Conversion factor: 35.3137 cubic feet per cubic metre.

Source: APA – The Engineered Wood Association, 2005.

TABLE 10.3.3

LVL consumption and production in North America, 2001-2005

(1000 m³)

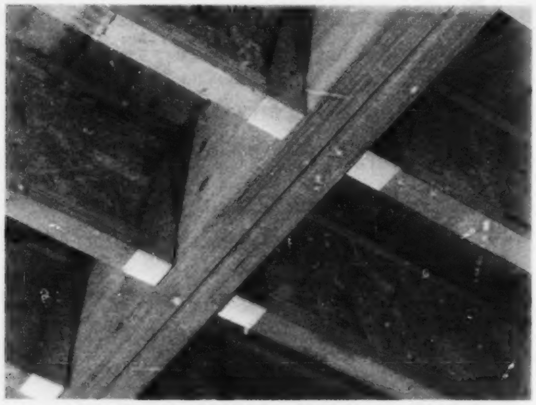
	2001	*2002*	*2003*	*2004*	*2005f*	*% change 2001-2005*
Demand						
I-beam flanges	767.4	792.9	869.4	962.8	971.3	26.6%
Beams, headers, others	900.5	968.5	1 042.1	1 481.0	1 478.2	64.2%
Total demand (and production)	1 667.9	1 761.4	1 911.4	2 443.8	2 449.5	46.9%
Production						
Total production US	15 12.2	15 88.6	1 744.4	2 222.9	2 228.6	47.4%
Total production Canada	155.7	172.7	167.1	220.9	220.9	41.8%

Notes: Other uses for LVL include scaffold plank, concrete form walers and furniture parts. APA is working to establish an international tariff code for LVL. Timing unknown.

Source: APA - The Engineered Wood Association, 2005

FIGURE 10.3.3

LVL flanges with an OSB web form I-beams, which are fastened to an LVL beam

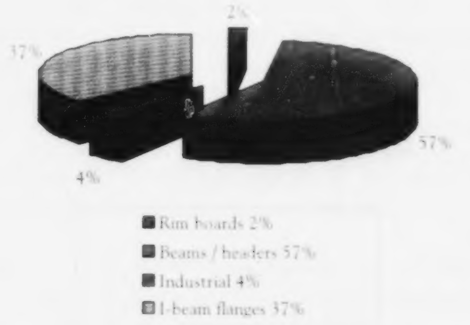


Source: APA – The Engineered Wood Association, 2005.

Beams and headers now account for 57% of LVL demand and I-beam flanges for 37% (graph 10.3.8). The trends in LVL production have historically followed developments in I-beam markets, since they were the main flange material. However, now that I-beam flanges are increasingly made from solid sawnwood, the trends should deviate. Industrial uses, such as scaffold plank, components of roof trusses, glulam tension lams, concrete form bracing and furniture and millwork parts, compose about 4% of overall LVL demand. APA is now working to establish an international tariff code for LVL.

GRAPH 10.3.8

LVL end uses in North America, 2004



Note: Rim boards are used around the perimeter of I-beam floor systems to support the structure.

Source: APA – The Engineered Wood Association, 2005.

10.3.4 *Other composite products*

Governments and trade associations in North America have established policies to support the development of the wood products industry, and, in turn, to support sustainable development in the forest sector. They, along with universities, research institutions and private industry, realize that the future of the wood products industry relies on developing new products to better meet the needs of existing markets, and on inventing new products from wood and wood fibre to meet new applications. Sometimes EWPs substitute for traditional wood products, such as sawnwood, and at other times EWPs are environmentally attractive substitutes for concrete and steel, for example in glulam.

Entrepreneurs, universities and research institutes continue to experiment with new composite products such as laminated strand lumber (LSL) and oriented strand lumber (OSL). If these new products achieve success as beams and headers, it will likely be at the expense of LVL. In 2004, the State of Mississippi allocated $10 million to help develop a Tim Tek plant in eastern Mississippi.[70] This product uses small-diameter logs that are crushed into long strands and then pressed, with an adhesive, into a mat that can be sawn into final products for uses such as wooden beams. A wood products company in Mississippi recently announced that it planned to build a Tim Tek plant, with product introduction in two to four years. This is an example of public policy funding research which, in turn, is commercialized with expectations of returns on investment of public funds in terms of employment, tax revenues and a series of multiplier effects to support sustainable development of the forest sector.

DeltaStrand, a new EWP, is another example of public and private partnerships in the development of EWPs to meet new applications and to indirectly support forest and forest industries sustainable development. DeltaStrand is being developed at the University of Maine's Advanced Engineered Wood Composites Center[71] in the State of Maine. The University's research programme is typical of that in other universities in that it is supported by a combination of federal, state and industrial partners' funding, which is commensurate with their policies to seek better utilization of wood and wood fibre.

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[70] See www.cfr.msstate.edu/timtek for more information.

[71] See www.aewc.umaine.edu for more information.

Chapter 11

Exports of tropical value-added products surpass primary products: Trends in the tropical timber trade in 2003-2004[72]

Highlights

- Reflecting successful policies to promote value-added production, secondary processed wood product exports by tropical countries exceeded the value of primary wood product trade in 2004 for first time.

- Growth of China's tropical plywood exports, based primarily on imported logs, has been rapid, reaching 567,000 m^3 in 2003 (30% above 2002 levels), and leaping a further 68% in 2004.

- Possible mislabelling of Indonesian logs creates large discrepancies in the reported tropical log trade between Malaysia and China.

- Tropical log exports have dropped by half in the past decade, with Malaysia currently accounting for about one third of the 13 million m^3.

- In 2003, total tropical sawnwood imports by European Union countries increased by almost 8% to 2.7 million m^3 due primarily to increased imports in France, the United Kingdom and Italy.

- Prices of many tropical timber products were affected by disruptions to trade due to civil unrest, CITES listings of substitute species, currency fluctuations, export bans, and import regulations and restrictions.

- In 2004, despite factors limiting supply, tropical timber prices did not rise significantly (except for plywood), largely because the main market for tropical sawnwood, the EU, was weak.

- Supported by strong demand, Brazilian plywood prices rose due to compliance with new EU safety rules on the manufacture of structural plywood (CE marking [Conformité Européenne]) which took effect in early 2004.

- In addition to its large tropical exports, Brazil became the major supplier of softwood plywood to the huge United States market, well ahead of Canada, the former main supplier; and in line with demand, Brazilian elliotis pine plywood prices reached record highs in early 2004, but waned during the remainder of the year as US stocks rose sharply due to buyers speculating on further price increases and imported more.

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[72] By Dr. Steven E. Johnson, Dr. Michael Adams, Dr. Jairo Castaño and Ms. Masaki Miyake.

Secretariat introduction

This analysis is possible thanks to continued close cooperation with our colleagues in the International Tropical Timber Organization (ITTO), whose 2004 *Annual Review and Assessment of the World Timber Situation* and bi-weekly *Market Information Service* reports serve as the basis for this chapter. We once again thank Dr. Steve Johnson[73] (Statistician and Economist), Dr. Michael Adams (MIS coordinator), Dr. Jairo Castaño (Systems Analyst) and Ms. Masaki Miyake (Statistical Assistant) for contributing this analysis.

Some of the terminology in this chapter differs slightly from the rest of the *Review*. In addition, due to unavailable data for several countries, 2003 is the base year for analysis in this chapter. ITTO categorizes its 60 members into producer (tropical) and consumer (non-tropical) countries, which together constitute 95% of all tropical timber trade.

For a complete analysis of trends in the production, consumption and trade of primary and secondary tropical timber products in relation to global timber trends, see the *Annual Review and Assessment of the World Timber Situation – 2004* prepared by the ITTO. It can be found on the ITTO website (www.itto.or.jp).

11.1 Introduction

In 2004 the global tropical timber sector focused increasingly on China, with that country's imports continuing to drive the tropical log and sawnwood trade. China also consolidated its position as one of the largest tropical plywood exporters based on imported and domestic logs and veneer. Japan's tropical plywood imports recovered in 2004 after a reported sharp drop in 2003 due to the inability of suppliers (mainly Indonesia) to comply with new formaldehyde emission regulations.

Japan's domestic production continued its steady decline along with the decline of tropical log imports. Many producer countries continued to expand secondary-processed wood product exports in 2003 and 2004, with trade in these products matching (and in 2004 exceeding) declining levels of primary tropical timber product trade.

This chapter provides details on trends in trade and prices of major primary tropical timber products by all 60 ITTO members (table 11.1.1) (for trends in secondary products, see chapter 10).

TABLE 11.1.1

Production and trade of primary tropical timber products, 2003-2004

(million m^3)

	2003	*2004*	*% Change*
Logs			
Production	138.6	137.7	-0.7
Imports	15.8	14.5	-7.9
Exports	13.2	12.5	-5.7
Veneer			
Production	3.5	3.6	4.0
Imports	1.3	1.4	6.1
Exports	1.1	1.0	-9.3
Sawnwood			
Production	44.2	45.4	2.6
Imports	10.1	9.9	-1.8
Exports	7.6	8.5	11.5
Plywood			
Production	21.4	21.5	0.3
Imports	8.9	10.7	20.3
Exports	11.4	12.9	13.4

Source: ITTO *Annual Review and Assessment of the World Timber Situation – 2004*, 2005.

11.2 Export trends

ITTO's 33 producer countries exported nearly 13 million m^3 of logs worth $1.6 billion in 2003, with Malaysia providing just over one third of this volume, down from almost three-quarters of the ITTO total in the early 1990s (graph 11.2.1). Producer log exports in 2003 were down slightly from 2002 levels and decreased a further 5.1% to 12.3 million m^3 in 2004, less than half the level exported just over a decade ago. Trade flow statistics for 2003-2004 appear to show declining flows of illegal or unrecorded logs from Indonesia to major trading partners, with Chinese and Malaysian (the latter with an import ban in place) import statistics falling closer to the virtually nil exports reported by Indonesia for the first time in many years. This declining flow of illegal and unrecorded logs has coincided, however, with the development of large discrepancies in reported log trade between China and Malaysia, raising the possibility that unrecorded and mislabelled Indonesian log exports are still reaching major import markets.

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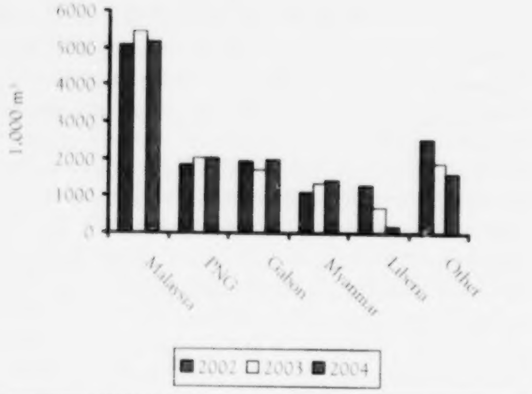
[73] Dr. Steven E. Johnson, Statistician and Economist, Dr. Michael Adams, Market Information System Coordinator, Dr. Jairo Castaño, Systems Analyst and Ms. Masaki Miyake, Statistical Assistant, Division of Economic Information and Market Intelligence, International Tropical Timber Organization (ITTO), International Organizations Center, 5th Floor, Pacifico-Yokohama, 1-1-1 Minato-Mirai, Nishi-ku, Yokohama 220-0012, Japan, telephone +81 45 223 1110, fax +81 45 223 1111, website: www.itto.or.jp, e-mail: itto@itto.or.jp

GRAPH 11.2.1

Major tropical log exporters, 2002-2004



Note: PNG = Papua New Guinea.

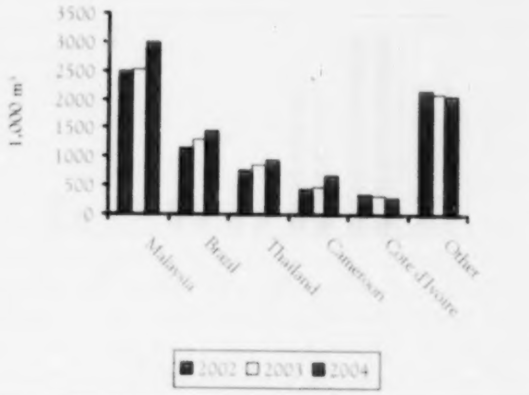
Source: ITTO, 2005.

Sawnwood exports by producer members were up by nearly 6% to 7.1 million m³ (worth $2.1 billion) in 2003, increasing to over 8 million m³ in 2004 (graph 11.2.2). Exports from the Asia-Pacific region fluctuated in 2003 and 2004, with African and Latin American exports following a steady upward trend. Sawnwood exports from Malaysia were expected to remain firm after Indonesia proposed an export ban in late 2004. Veneer exports from ITTO producer countries declined by 11.5% in 2003 to 957,000 m³, worth $488 million, dropping a further 8.8% in 2004 (graph 11.2.3). Tropical plywood exports by producer members in 2003 declined by 1.2% to 10.2 million m³, worth nearly $3.1 billion, with Indonesia (5.1 million m³) and Malaysia (3.9 million m³) accounting for almost 88% of this total (graph 11.2.4). Exports rose to 11.4 million m³ in 2004, with the increase due mainly to exports from Malaysia.

ITTO consumer countries also exported or re-exported substantial volumes of tropical timber in 2003, led by sawnwood and plywood exports of 485,000 m³ (worth $342 million) and 1.2 million m³ ($474 million) respectively. Log and veneer exports were smaller (144,000 m³ or $47 million and 138,000 m³ or $137 million respectively in 2003). Exports of tropical plywood by consumer countries increased in 2004, while log, sawnwood and veneer exports declined. Growth of China's tropical plywood exports has been rapid, reaching 567,000 m³ in 2003 (30% above 2002 levels), and leaping a further 68% in 2004 to 955,000 m³. Brazil remains the third largest exporter of tropical plywood, but China is rapidly catching up.

GRAPH 11.2.2

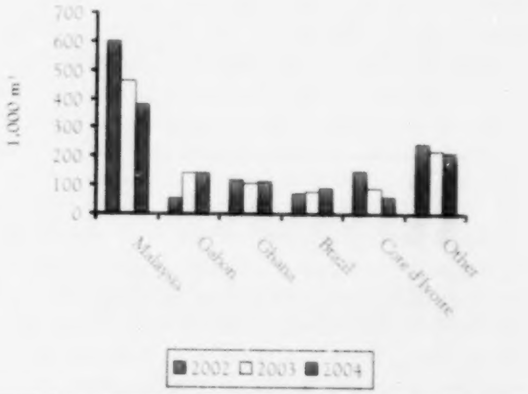
Major tropical sawnwood exporters, 2002-2004



Source: ITTO, 2005.

GRAPH 11.2.3

Major tropical veneer exporters, 2002-2004



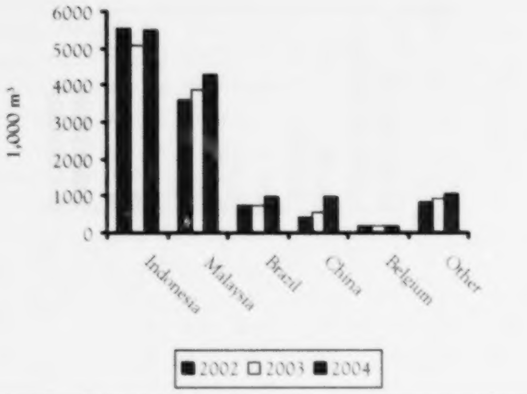
Source: ITTO, 2005.

In the EU, exports of tropical sawnwood have decreased from 420,000 m³ in 2000 to 330,000 m³ in 2003. Belgium, a larger tropical sawnwood exporter than many producer countries, was the main EU tropical sawnwood exporter at 153,000 m³ in 2003, followed by Germany, the Netherlands and France. Total consumer country exports of tropical sawnwood dropped to 371,000 m³ in 2004, due to a decline of nearly 11% (to 295,000 m³) in EU exports.

The EU accounted for 81,000 m³ of total consumer country tropical veneer exports of 138,000 m³ in 2003, with 2004 levels of EU exports dropping almost 17% to 67,000 m³. France, Germany and Spain are the largest EU tropical veneer exporters. Total exports by ITTO consumer countries increased to 120,000 m³ in 2004, led by increased exports from China.

GRAPH 11.2.4

Major tropical plywood exporters, 2002-2004



Source: ITTO, 2005.

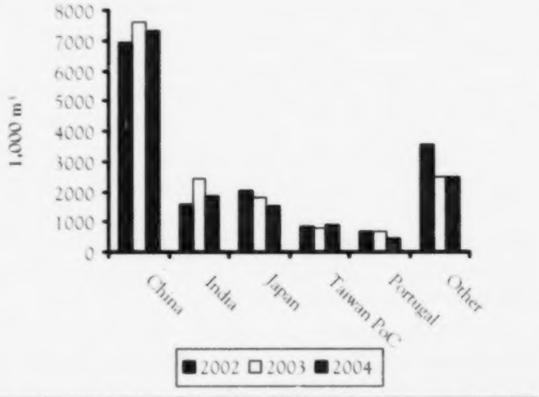
ITTO consumer country exports of tropical plywood increased by 15.5% to 1.2 million m³ in 2003 due mainly to the sharp increase in exports by China noted above. China's boom in tropical plywood exports to markets such as the EU, Taiwan Province of China and Japan is notable since it is largely based on logs sourced from ITTO producer country exporters, many of which have been steadily losing share in these plywood markets. Chinese exports initially comprised mainly okoume plywood (now subject to heavy anti-dumping duties in the EU) and later included other "combi" plywood products with a domestic poplar core and tropical bintangor or meranti face. Chinese plywood products are comparatively lighter and cheaper than southeast Asian products, and their quality has improved noticeably in recent years. Interest in alternative Chinese plywood products is tending to rise as the long-term trend is towards declining availability from Indonesia. The EU, which imports substantial quantities of Chinese tropical plywood, is also a significant exporter, with trade almost exclusively between EU members. Tropical plywood exports from the EU grew by 5% to 471,000 m³ in 2003, when it accounted for slightly more than 40% of consumer exports. EU exports were mainly from Belgium and France in 2003. Total consumer country exports of tropical plywood rose by 32.4% to almost 1.5 million m³ in 2004, led by the increased exports from China.

11.3 Import trends

Tropical hardwood log imports by ITTO consumer countries were stable at around 12.7 million m³ in 2003 (graph 11.3.1). However, log imports declined 7% in 2004 to 11.8 million m³ due to decreases in French, Japanese and Portuguese tropical log imports, and a Chinese market that levelled off somewhat after several years of strongly growing imports. China imports more Russian logs, which are now double tropical log imports. If imports by producing members are taken into account, total 2003 tropical log imports by ITTO members were almost 15.8 million m³, 1% more than in 2002. The 2003 total log import figure is nearly 2.7 million m³ higher than total ITTO exports, with this gap decreasing to around 1.6 million m³ in 2004. Non-ITTO log suppliers presumably provide the balance, although under-reporting of log exports, misclassification of imports, smuggling and/or statistical errors can also contribute to such gaps. Major non-ITTO tropical log suppliers include Equatorial Guinea and the Solomon Islands, with exports estimated to average over 400,000 m³ per year each.

GRAPH 11.3.1

Major tropical log importers, 2002-2004



Source: ITTO, 2005.

China's imports of tropical logs increased 10% to over 7.6 million m³ in 2003. China's growing economy, a continuing ban on domestic harvesting and a zero tariff on log imports continue to drive roundwood imports upwards, although tropical logs declined slightly in 2004 to 7.3 million m³ due to supply constraints. Japan's imports of tropical logs declined 12% to under 1.8 million m³ in 2003, dropping a further 16% in 2004 due to its slow economy, reduced supplies from Malaysia, competition for log supplies with China and an increasing reliance on softwood logs. India, Thailand and the

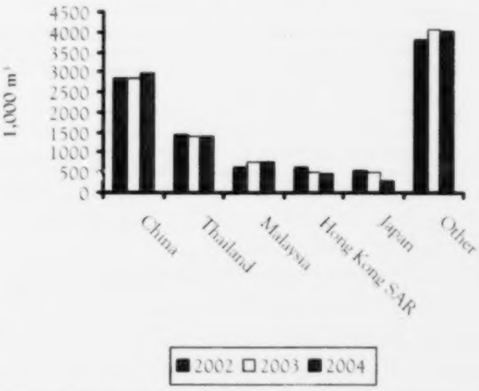
Philippines are the major ITTO producer country log importers, accounting for 96% of total producer imports of 3.1 million m^3 in 2003. Log imports by both Thailand and the Philippines declined in 2003, but recovered in 2004 (India had the reverse trend).

EU countries imported nearly 1.9 million m^3 of tropical logs in 2003, down 8.7% from 2002. Most EU tropical log imports continue to come from African producers. Portugal, the largest EU tropical log importer, remained stable at a reported 668,000 m^3 in 2003, but fell by a third in 2004. Portugal has in previous years, and again in 2004, reported substantial imports of tropical eucalyptus logs from Brazil, which were not mirrored in Brazil's export statistics. Imports by France decreased by 10% to 579,000 m^3 in 2003 as log export restrictions in some of its main supplier countries (Cameroon, Gabon, Liberia and Republic of Congo) were imposed or strengthened. French imports declined a further 28% to 417,000 m^3 in 2004. Italy is also a major European log importer, at 200,000 m^3 in 2003. European log imports decreased 18.5% in 2004 to 1.5 million m^3.

China also continued as the world's largest tropical sawnwood importer in 2003, despite a slight decline of 1% in imports to under 2.8 million m^3 (graph 11.3.2).

GRAPH 11.3.2

Major tropical sawnwood importers, 2002-2004



Source: ITTO, 2005.

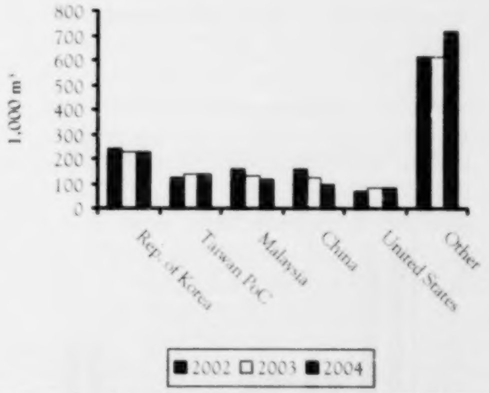
Thailand's imports (which more than halved in 1998) also declined by 1% to 1.4 million m^3 in 2003. Japan's imports of tropical sawnwood decreased 10% to 490,000 m^3 in 2003, and declined a further 40% to 292,000 m^3 in 2004. Imports of tropical sawnwood by all consumer countries increased by 1.2% in 2003 to 7.6 million m^3, but declined 2.6% to 7.4 million m^3 in 2004 due to the drop in Japanese imports. Increased imports by producers led total ITTO tropical sawnwood imports to increase 1.1% to 10.1 million m^3 in 2003. Total imports decreased to under 10 million m^3 in 2004 due to declines in consumer country markets.

Total tropical sawnwood imports by EU countries increased by almost 8% in 2003 to 2.7 million m^3, due primarily to increased imports in France, the UK and Italy. Brazil, Malaysia and Indonesia are the main sources for EU imports, accounting for over half of the total. Côte d'Ivoire, Cameroon and Ghana supplied virtually all of the remainder of EU imports. European tropical sawnwood imports decreased nearly 2% in 2004 to 2.6 million m^3 due to declines in Belgium, Germany, the Netherlands and Portugal. The Netherlands is the largest importer of tropical sawnwood in the EU, absorbing 392,000 m^3 in 2003 (down 11% from 2002) and 390,000 m^3 in 2004. The Netherlands' imports are primarily from Asia (Indonesia and Malaysia), Brazil and Belgium. France, the UK, Spain and Italy were other major EU tropical sawnwood importers in 2003.

Total ITTO tropical veneer imports decreased 4.1% to 1.3 million m^3 in 2003, but increased by 6.1% to nearly 1.4 million m^3 in 2004 (graph 11.3.3).

GRAPH 11.3.3

Major tropical veneer importers, 2002-2004



Source: ITTO, 2005.

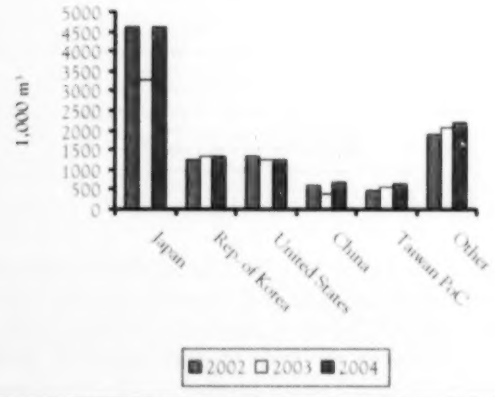
Despite a 5% decline from 2002 levels, the Republic of Korea remained the largest ITTO tropical veneer importer in 2003, with 228,000 m^3: its imports recovered slightly by 1% to 231,000 m^3 in 2004. Malaysia became ITTO's second largest tropical veneer importer in 2003, overtaking China with 128,000 m^3, although the sources of these imports are unclear. Malaysia's imports fell 6% to 120,000 m^3 in 2004. Meanwhile, China's imports fell sharply by 24% in 2003 to 122,000 m^3 and a further 19% to 99,000 m^3 in 2004 as it met its veneer needs increasingly via production from imported tropical logs. The EU absorbed 302,000 and 336,000 m^3 of tropical veneer in 2003 and 2004, over one-fifth of total ITTO imports. The majority of European imports are from African producers (mainly Côte d'Ivoire, but increasingly also from Gabon and Ghana).

Despite a reported 29% drop in 2003, tropical plywood imports were still led by Japan at 3.3 million m^3 (graph 11.3.4). Imports continue to replace domestic production of tropical plywood in Japan due to reduced availability of tropical peeler logs and relatively low prices of imported plywood. Japan's imports made up almost 37% of total ITTO imports of 9 million m^3 in 2003. Tropical plywood imports by ITTO members increased to 10.7 million m^3 in 2004, as Japanese imports recovered along with the ability of that country's suppliers (mainly Indonesia) to meet a new standard on formaldehyde emissions.

EU imports of tropical plywood totalled nearly 1.4 million m^3 in 2003, a 7.5% increase from 2002 levels. EU imports are mostly accounted for by the UK, Belgium, the Netherlands, Germany, Italy and France. Most of the EU's tropical plywood also came from Indonesia and Malaysia, with Brazil and inter-European trade also playing a fairly large role in many countries' imports. China continued to export growing amounts of tropical plywood to the EU, particularly to the UK, where quality and pricing concerns regarding this product have been raised. European imports of tropical plywood declined by 3.2% in 2004.

GRAPH 11.3.4

Major tropical plywood importers, 2002-2004



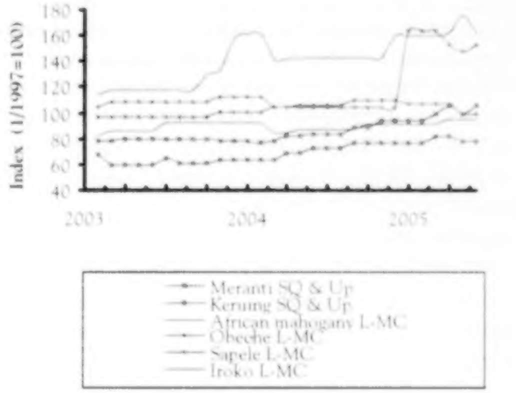
Source: ITTO, 2005.

11.4 Prices

Nominal US dollar prices for many primary tropical timber products and species strengthened during 2004, as supplies of raw materials tightened, global economies improved, currencies strengthened against the US dollar and consumer confidence and demand improved in most markets (graphs 11.4.1, 11.4.2 and 11.4.3).

GRAPH 11.4.1

Tropical hardwood log price trends, 2003-May 2005

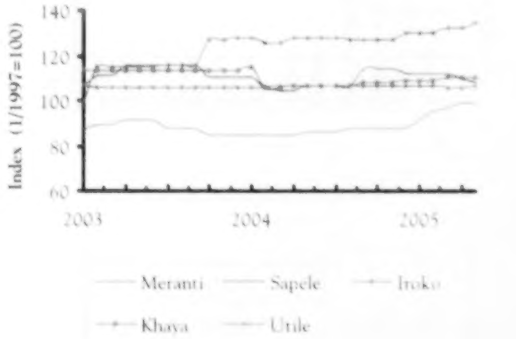


Note: SQ & up, L-MC are grade specifications.

Source: ITTO, 2005.

GRAPH 11.4.2

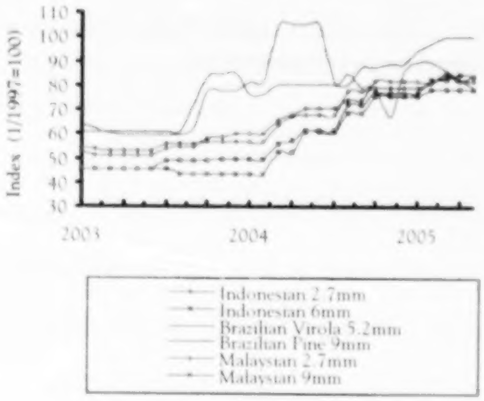
Tropical sawnwood price trends, 2003-May 2005



Source: ITTO, 2005.

GRAPH 11.4.3

Tropical plywood price trends, 2003-May 2005



Source: ITTO, 2005.

African log and sawnwood prices held on to gains made in 2003, with some species reaching record highs in dollar terms in 2004. African timber products are generally priced in euros and, with the strong appreciation of the euro against the US dollar in 2004, logs and sawnwood products lost competitiveness with similar products from southeast Asia, which are traditionally priced in US dollars. However, the gains in African prices were not solely the result of currency movements: shortages in supply of certain species also drove up prices.

Political unrest in the Central African Republic, Côte d'Ivoire and Liberia, a UN embargo on Liberian log exports, bans on exports of 20 primary species in Cameroon, tax increases in several countries, and shipping bottlenecks, all combined to force many producers to push for higher prices. Sharper price gains were deterred, however, by sluggish demand in the European market, with the exception of obeche prices, which were reported to have jumped nearly 60% in the last quarter of 2004, at least partially due to substitution of this species for ramin, which was listed in Appendix II of CITES in October 2004.

Prices for some southeast Asian log species rose to six-year highs in 2004 due to tight supplies resulting largely from the restrictions on log exports and reduced logging quotas in Indonesia. This rise was despite some resistance by buyers in China, the main destination for southeast Asian logs. Nonetheless, prices of logs from natural forests in Asia (mostly destined for the Chinese, Indian and Japanese markets) remained roughly 15-30% below the pre-crisis levels of early 1997.

Prices for Asian and African tropical sawnwood products in most cases rose slightly in 2004 and in some instances (e.g. khaya and iroko) reached new record highs early in the year. Price gains were largely due to various restrictions on trade of African and substitute species, including the ban on logging of mahogany in Brazil, the inclusion of this species in Appendix II of CITES in late 2003 and the disruptions of the iroko trade due to civil unrest in Côte d'Ivoire. The US continued absorbing most of the khaya (also known as African mahogany) made available in the marketplace, as the supply of South American mahogany, strongly favoured by US consumers, was restricted. European consumers continued showing a resurgence of interest in red and darker brown species for furniture manufacture in 2004, and this was reflected in higher prices for such woods. Like logs, Asian sawnwood became more competitive in the EU compared with African timbers, due to the strong euro in 2004. Sapele, for instance, continued losing market share to dark red meranti in 2004, due to the far more attractive price level of the latter.

Prices for Asian plywood continued rising in 2004. Indonesian and Malaysian plywood manufacturers increased supplies of plywood compliant with the new Japan Agricultural Standard (JAS) for low formaldehyde emissions introduced in 2003 and benefited from an increase in prices in 2004. The firming prices in 2004 reflected strong demand for JAS compliant plywood, continuous shortages in log availability in Indonesia and bottlenecks in shipments. Due to its limited availability, Indonesian plywood was increasingly substituted in Europe and elsewhere with cheaper Chinese "combi" plywood products with domestic poplar cores and imported tropical face veneers. Several large importers (especially in Europe) have been looking for substitutes for Indonesian plywood due to concerns over illegal logging. In mid-2004, the European Commission proposed a scheme for certifying the legality of all timber exported to the EU. Indonesia was expected to be one of the first participants under this scheme, and has already signed bilateral agreements to stem illegal exports with the UK, China and Japan. The impacts of such a scheme on demand, supply and prices of plywood and other tropical timber products is still uncertain, but it is clear that the existence of increasing quantities of low-cost Chinese plywood in the EU and other markets will have a negative influence on prices. As noted above, the EU is already imposing punitive anti-dumping duties on Chinese okoume plywood due to alleged below-cost pricing.

Prices of Brazilian plywood rose in 2004 due to strong demand in the US and UK. Prices also benefited from

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CITES is the Convention on International Trade in Endangered Species of Wild Flora and Fauna, www.cites.org

Brazilian plywood manufacturers' compliance with new EU safety rules on the manufacture of structural plywood (CE marking[75]) which took effect in early 2004. In addition to its large tropical exports, Brazil has become the major supplier of softwood plywood to the huge US market, well ahead of Canada, the former main supplier. Brazilian elliotis pine plywood prices reached record highs in early 2004. However, the strong demand for (and prices of) elliotis pine plywood waned during the remainder of the year as US stocks rose sharply due to the resolution of shipment problems in Brazil.

11.5 References

ITTO. 2005a. Annual Review and Assessment of the World Timber Situation – 2004. http://www.itto.or.jp.

ITTO. 2005b. ITTO Market Information Service (biweekly). http://www.itto.or.jp.

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[75] CE Marking is a mandatory mark for approximately 70% of the products sold on the EU market. The letters "CE" are the abbreviation of the French phrase "Conformité Européenne" which literally means "European Conformity".

Annex

Components of wood products groups **116**

Roundwood flowchart 116

Wood-based panels flowchart 116

Wood pulp flowchart 117

Paper and paperboard flowchart 117

Countries in the UNECE region and its subregions **118**

Sources of information used in the *Forest Products Annual Market Review* **119**

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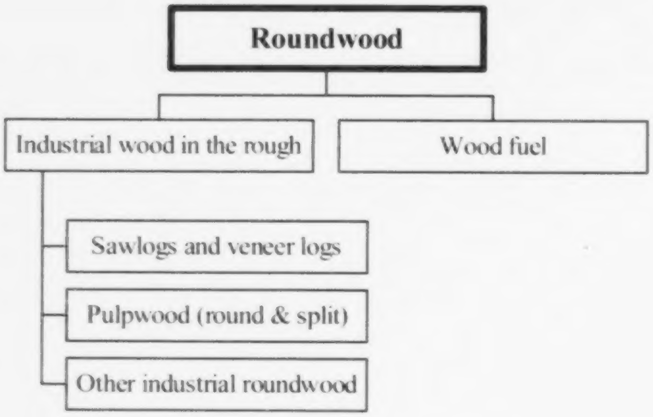
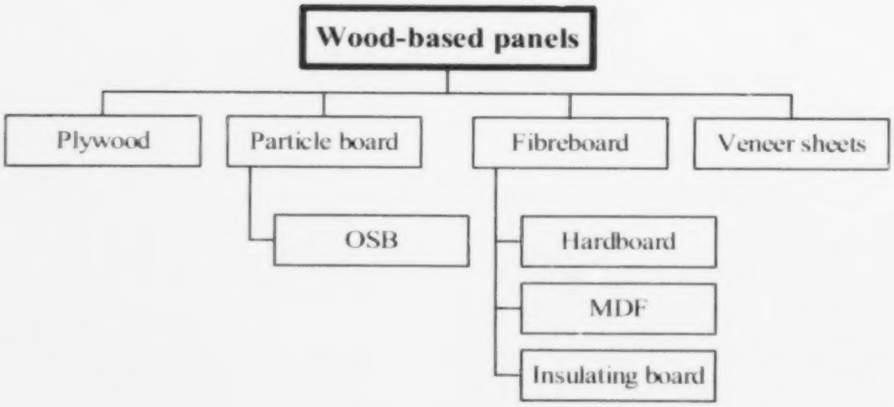
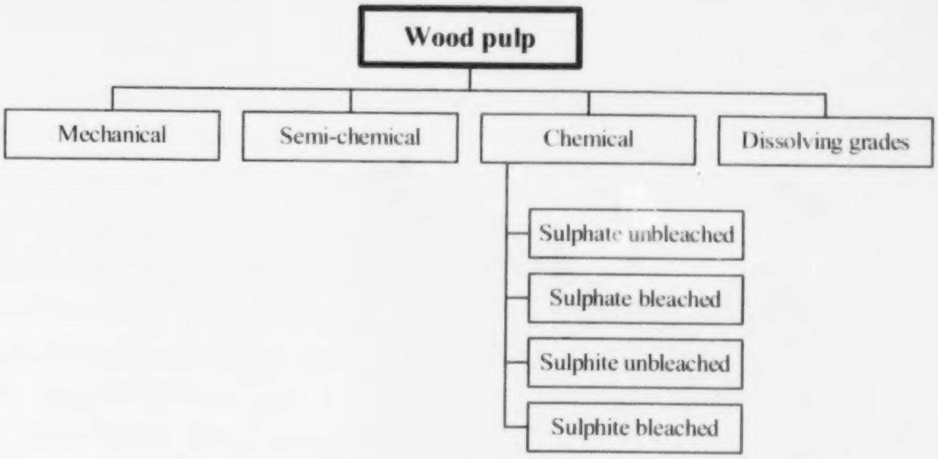
Components of wood products groups

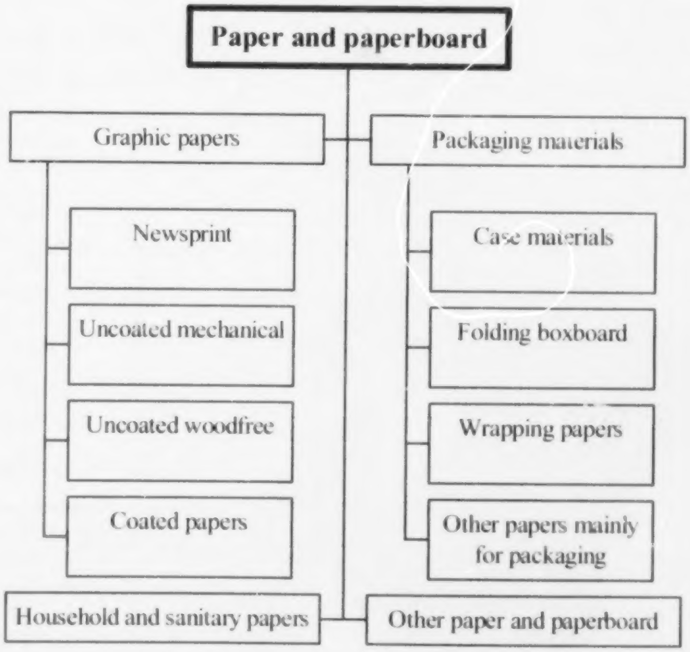
(Based on Joint Forest Sector Questionnaire nomenclature)

The important breakdowns of the major groups of primary forest products are diagrammed below. In addition, many sub-items are further divided into softwood or hardwood. These are all the roundwood products, sawnwood, veneer sheets and plywood. Items that do not fit into listed aggregates are not shown. These are wood charcoal, chips and particles, wood residues, sawnwood, other pulp and recovered paper.

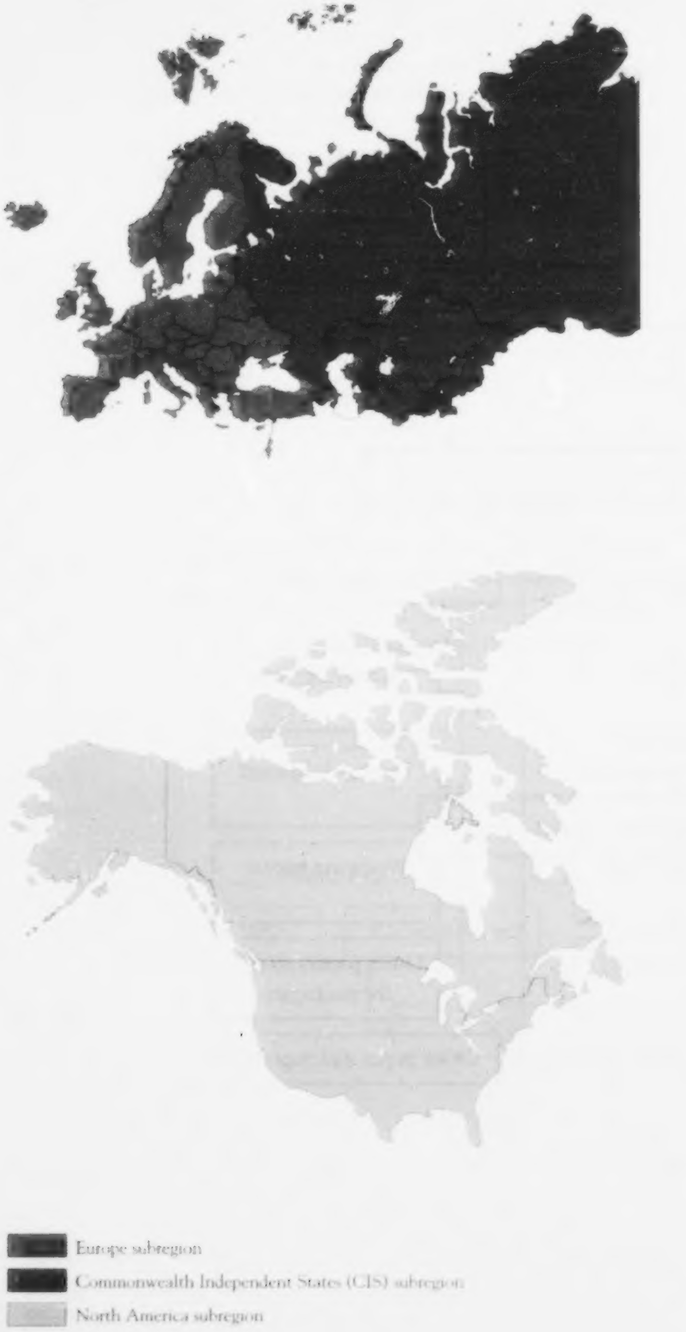

Roundwood
Industrial wood in the rough
Wood fuel
Sawlogs and veneer logs
Pulpwood (round & split)
Other industrial roundwood


Wood-based panels
Plywood
Particle board
Fibreboard
Veneer sheets
OSB
Hardboard
MDF
Insulating board


Wood pulp
Mechanical
Semi-chemical
Chemical
Dissolving grades
Sulphate unbleached
Sulphate bleached
Sulphite unbleached
Sulphite bleached


Paper and paperboard
Graphic papers
Packaging materials
Newsprint
Uncoated mechanical
Uncoated woodfree
Coated papers
Case materials
Folding boxboard
Wrapping papers
Other papers mainly for packaging
Household and sanitary papers
Other paper and paperboard

Countries in the UNECE region and its subregions


Europe subregion
Commonwealth Independent States (CIS) subregion
North America subregion

Europe subregion (EU *)
- Albania
- Andorra
- Austria *
- Belgium *
- Bosnia and Herzegovina
- Bulgaria Croatia
- Cyprus *
- Czech Republic *
- Denmark *
- Estonia *
- Finland *
- France *
- Germany *
- Greece *
- Hungary *
- Iceland
- Ireland *
- Israel
- Italy *
- Latvia *
- Liechtenstein
- Lithuania *
- Luxembourg *
- Malta *
- Monaco
- Netherlands *
- Norway
- Poland *
- Portugal *
- Romania
- San Marino
- Serbia and Montenegro
- Slovakia *
- Slovenia *
- Spain *
- Sweden *
- Switzerland
- The FYR of Macedonia
- Turkey
- United Kingdom *

Commonwealth of Independent States (CIS) subregion
- Armenia
- Azerbaijan
- Belarus
- Georgia
- Kazakhstan
- Kyrgyzstan
- Republic of Moldova
- Russian Federation
- Tajikistan
- Turkmenistan
- Ukraine
- Uzbekistan

North America subregion
- Canada
- United States of America

Sources of information used in the Forest Products Annual Market Review

- APA – The Engineered Wood Association, United States, (www.apawood.org)
- Office National des Fôrets, France, (www.onf.fr)
- Bureau of Labor Statistics, United States, (www.stats.bls.gov)
- Canadian Standards Association, CSA International, (www.csa.ca)
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- Council of Forest Industries, Canada, (www.cofi.org)
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- *Statistische Bundesamt Preise*, Reihe 1; Reihe 2, Germany (www.destatis.de)
- Statistics Canada, Canada, (www.statcan.ca)
- Swedish Forest Industries Federation (www.svenskttra.org)
- Swedish National Board for Industrial and Technical Development (NUTEK), (www.nutek.se)
- Swedish National Energy Administration, (www.stem.se)
- Swiss Federal Statistical Office, Switzerland (www.statistik.admin.ch/)
- *Timber & Wood Products* (TTJ), United Kingdom, (www.ttjonline.com/)
- UN Comtrade, United States, (www.unstats.un.org/unsd/comtrade/)
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Some facts about the Timber Committee

The Timber Committee is a principal subsidiary body of the UNECE (United Nations Economic Commission for Europe) based in Geneva. It constitutes a forum for cooperation and consultation between member countries on forestry, forest industry and forest product matters. All countries of Europe, the Commonwealth of Independent States, United States of America, Canada and Israel are members of the UNECE and participate in its work.

The UNECE Timber Committee shall, within the context of sustainable development, provide member countries with the information and services needed for policy- and decision-making regarding their forest and forest industry sector ("the sector"), including the trade and use of forest products and, when appropriate, formulate recommendations addressed to member Governments and interested organizations. To this end, it shall:

1. With the active participation of member countries, undertake short-, medium- and long-term analyses of developments in, and having an impact on, the sector, including those offering possibilities for the facilitation of international trade and for enhancing the protection of the environment;
2. In support of these analyses, collect, store and disseminate statistics relating to the sector, and carry out activities to improve their quality and comparability;
3. Provide the framework for cooperation e.g. by organizing seminars, workshops and ad hoc meetings and setting up time-limited ad hoc groups, for the exchange of economic, environmental and technical information between governments and other institutions of member countries that is needed for the development and implementation of policies leading to the sustainable development of the sector and to the protection of the environment in their respective countries;
4. Carry out tasks identified by the UNECE or the Timber Committee as being of priority, including the facilitation of subregional cooperation and activities in support of the economies in transition of central and eastern Europe and of the countries of the region that are developing from an economic point of view;
5. It should also keep under review its structure and priorities and cooperate with other international and intergovernmental organizations active in the sector, and in particular with the FAO (Food and Agriculture Organization of the United Nations) and its European Forestry Commission and with the ILO (International Labour Organisation), in order to ensure complementarity and to avoid duplication, thereby optimizing the use of resources.

More information about the Committee's work may be obtained by writing to:

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Fax: + 41 22 917 0041
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Website: http://www.unece.org/trade/timber

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Forest and Forest Products Country Profile: Russian Federation	ECE/TIM/SP/18
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The *Forest Products Annual Market Review, 2004-2005* provides a comprehensive analysis of the UNECE region, including the Commonwealth of Independent States, Europe and North America. The *Review* covers forest products from the forest to the final consumer, i.e. from roundwood and primary-processed products to value-added products. Each issue includes extensive statistical information combined with an analysis of trends and developments. Standard statistics-based chapters are presented on sawn softwood, sawn hardwood, wood-based panels, wood raw materials and pulp and paper. Other annual chapters analyse markets for certified forest products, value-added wood products and tropical timber.

This year's *Review* includes a chapter covering policy issues related to forest products markets including forest law enforcement, governance and trade, initiatives to encourage the use of sustainably produced timber products, forest sector development policies, climate change policy, wood energy policies, trade policy and tariff and non-tariff barriers, including phytosanitary measures and the emergence of China as a major player in the wood products manufacturing arena.

The *Forest Products Annual Market Review* and its predecessor publications have been published annually since 1948 by the UNECE/FAO Timber Branch. Its goal is to provide comprehensive statistics and analysis on forest products markets with an emphasis on policy implications. This information isintended for policy makers, researchers, investors and forest products marketing specialists ingovernments, research institutions, universities and the private business sector. This Review is intended for use as a background document for the annual UNECE Timber Committee Market Discussions.

Further information about forest products markets, as well as information about the UNECE Timber Committee and the FAO European Forestry Commission is available on the website www.unece.org/trade/timber. Information about the UNECE may be found at www.unece.org and information about FAO may be found at www.fao.org.

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